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ANESTEZİ VE REANİMASYON UZMANLARI DERNEĞİ YAYIN ORGANI

OFFICIAL JOURNAL OF ANESTHESIOLOGY AND REANIMATION SPECIALISTS SOCIETY

Bu dergi TÜBİTAK-TÜRK TIP DİZİNİ, TÜRKİYE ATIF DİZİNİ, EMBASE/EXCERPTA MEDICA ve SCOPUS veri tabanında yer almaktadır.

The journal is indexed in TUBITAK Turkish Medical Index, Türkiye Citation Index, EMBASE/Excerpta Medica and Scopus

Electronic Publication

ANESTEZİ DERGİSİ YAZIM KURALLARI

1. Anestezi Dergisi, Anesteziyoloji ve Reanimasyon Uzmanları Derneği'nin süreli yayın organıdır. Dergi üç ayda bir yayınlanır, dört sayı ile bir cilt tamamlanır.
2. Dergide; Anesteziyoloji, Yoğun Bakım ve Ağrı ile ilgili özgün araştırmalar, ilgi çekici olgu(ların) sunumları, bilimsel paneller, kısa bildiriler, editöre yazılan mektuplar, adı geçen alanlar ile ilgili mesleki haberler, Dergi Yayın Kurulu tarafından ısmarlanan çeviriler ile konusunda deneyimli yazarlara hazırlatılan derlemeler yayınlanır. Editör'ün talebi üzerine yazılanlar dışında derleme kabul edilmez. Bildiri olarak sunulmuş ya da özet biçiminde yayınlanmış yazılar geniş sunumu ile kabul edilir. Ancak daha önce sunulduğu veya yayımlandığı not olarak belirtilmelidir.
3. Derginin yazı dili Türkçe ve İngilizce'dir.
4. Dergide yayımlanmak üzere gönderilecek metinler, Uluslararası Tıbbi Dergi Editörleri Kurulu'nca hazırlanan "Biyomedikal dergilere teslim edilecek metinlerde aranan ortak özellikler"in üçüncü (1988) baskısındaki kurallara uygun olmalıdır *(Br Med J 1988; 296: 401-5 veya Anestezi Dergisi 1995; 3: 7-12)*.
5. Dergide yayımlanması istenen yazılar, Türk Dil Kurumu'nun Türkçe Sözlüğü ve Yeni Yazım Kuralları'na uygun olmalıdır. Teknik terimler Türk Tıp Terminolojisi'nde kullanılan şekli, metinde adı geçen ilaçlar ise farmakolojik adlarıyla Türkçe olarak yazılmalıdır.
6. Yayımlanması istenen metin daha önce başka bir yayın organında yayımlanmış veya yayımlanmak üzere teslim edilmiş olmamalıdır.
7. Dergi Yayın Kurulu, yayımlanmak üzere gönderilen bilimsel yazılar; bilimsel yönden değerlendirmek üzere danışmana veya düzeltilmek üzere yazarına geri göndermek, biçimde düzeltmek veya kısaltmak, yayın ve etik kurallara uymayanları yayımlamamak yetkisine sahiptir.
8. Anestezi Dergisi'ne başvuruda;
   a. Çalışmanın değerlendirmeye alınabilmesi için; dergiye gönderilen makalenin tüm yazarlarca okunduğunu, onaylandığını, yayın etiğine uyulduğunu ve yayın ile ilgili telif haklarının dergiye bırakıldığını bildiren ve her yazar tarafından imzalanmış olan "Yayın Hakkı Devir Formu" ile makale için alınmış "Etik Kurul Karar Yazısı" kopyası e-posta adresimize gönderilmelidir. Aksi halde başvurular değerlendirmeye alınmaz.
   b. Dergiye gönderilen tüm yazılar çıkar çatışması hakkında bir açıklama ile gönderilmelidir: ayrı bir sayfada tüm yazarlarca imzalanmış olarak alınan finansal destekler (araştırma destek fonları, ilaç malzeme katkısı, vb) açıkça belirtilmeli ve bir çıkar çatışması olup olmadığı bildirilmelidir.
9. Yazım Kuralları
   a. Tüm metin Times New Roman yazı karakteri ile, sağdan ve soldan 2.5, alttan ve üstten 2.5 cm boşluk olacak şekilde, 12 punto (tablo içeriği ve şekil, grafik alt yazıları 10 punto), iki satır aralıkla, paragraf girintisi olmadan, her paragraf için bir satır boşluk bırakarak düzenlenmelidir.
      1. Birinci sayfada yazının başlığı, yazarların sırası ile açık adları ve soyadları, çalışmanın yapıldığı anabilim dalı veya klinik adı veya kurum adları, yazının kısa başlığı, gönderilme tarihi, yazışmanın yapılacağı yazarın ad-soyadı, adres bilgileri, telefon, faks ve e-posta adresi belirtilmelidir.
      2. Özet ve Anahtar kelimeler: Araştırma yazılarının Türkçe ve İngilizce özetleri; Amaç (Objective), Yöntem (Method), Bulgular (Results), Sonuç (Conclusion) başlıkları altında yapılandırılmış şekilde ayrı paragraflar halinde ve en fazla 250 kelime olacak şekilde sunulmalıdır. İngilizce özet Türkçe özet ile aynı olmalı, İngilizce başlık da eklenmelidir. Türkçe ve İngilizce anahtar kelimeler en fazla 5 adet olmalı, Türkiye Bilim Terimleri (http://www.bilimterimleri.com) ve Index Medicus Subject Headings (MeSH)'e (http://www.nlm.nih.gov/mesh/2007/MBrowser.html) uygun olarak hazırlanmalıdır.

   b. Metin

   Makaleler için

   Giriş, gereç ve yöntem, bulgular, tartışma, teşekkür (istenirse), kaynaklar, tablolar ve şekiller şeklinde düzenlenmelidir. Tablo ve şekiller kaynaklar kısmından sonra ilk sayfada liste olarak sıralanmalıdır. Grafikler şekil olarak isimlendirilmelidir. Tablo veya şekil numaraları (tabloların sırası romen rakamıyla, şekillerin sırası arabik rakamlarla) metin içinde konunun geçtiği yerde parentez içerisinde belirtilmelidir. Ardından her sayfada bir tablo veya şekil olacak şekilde alt ve/veya üst yazıları, kısaltmaları ile birlikte yazılmalıdır. Başka bir yayından alıntı yapılmış ise tablo ve şekiller için de mutlaka kaynak gösterilmelidir. Tablo ve şekillerde kısaltma kullanıldı ise uzun ifadeleri başlıklar ile birlikte ayrı sayfada açıklanmalıdır.

   Kullanılan birimler (mg/kg/st) yerine (mg kg^{-1} st^{-1}) şeklinde yazmalıdır.

   Olgu(ların) sunumları için

   Giriş, olgu(ların) sunumu, tartışma, kaynaklar (ve varsa tablo, şekil, resim), şeklinde düzenlenmelidir.

   Editöre mektup

   Editöre; dergide yayımlanan metinlerle veya mesleki konularla ilgili olarak 750 kelimeyi aşmayan ve 5 (beş) kaynak ile 1 (bir) tablo veya şekil içerecek şekilde mektup yazılabilir. Ayrıca bilimsel araştırma niteliği taşıyan ancak az veriye sahip orijinal çalışmalar, ön bulgular ve teknik detaylar da yayımlanabilir. Editör bu mektubu yayımlayıp yayımlamamakta serbesttir.

   Bilimsel özet

   Meslektaşlarımızın uluslararası dergilerde (TÜBİTAK'ın belirlediği A, B ve C Grubu dergiler) yayımlanan bilimsel makalelerin duyurulması için özetleri yayımlanabilir. Bu amaçla; yazının fotokopisi ve "Abstract"ın Türkçe çevirisi dergi e-posta adresine yollanmalıdır.

   c. Kaynakların düzenlenmesi

      1. Süreli yayınlar için

      • Kaynak seçiminde Türkçe kaynaklardan da yararlanmaya özen gösterilmelidir.
      • Kaynaklar ana metin içinde ilk geçtikleri sıraya göre parantez içinde numaralandırılır (kaynaklar sıra ile gelmiyorsa "," ile, eğer ikiden fazla ve birbirini izleyen sayılar ise parantez içindeki ilk sayı ile son sayı arasına " - " işareti konulur,
      • Kaynak yazılımında; sıra ile yazar soyadı ve adlarının baş harfleri (yazar sayısı altı adet veya altıdan az ise tüm yazarlar, eğer altı adetten fazla ise ilk üç yazar yazıldıktan sonra; "ve ark." eklenir), makalenin adı, varsa Index Medicus'a göre kısaltılmış dergi adı, yayın yılı, cilt numarası, parantez içerisinde sayısı, yazının başlangıç ve bitiş sayfa numaraları yazılır.

        Brown BR, Gandolphi A. Adverse effects of volatile anaesthetics. Br J Anaesth 1987; 59: 14-19.

      2. Kitaplar için

      • Tek yazarlı ise; sıra ile yazar soyadı ve adı, kitap ismi, basımevinin bulunduğu şehir, yayınevi, baskı yılı ve başlangıç ile bitiş sayfa numaraları kısaltmadan yazılır (Türkçe çeviriler için örneğe bakınız).
      • Yabancı, Türkçe ve çeviri kitap için örnekler

        Moore DC. Regional Block. Springfield-Illions, Charles C. Thomas 1979; 155-172.
        Esener Z. Klinik Anestezi. İstanbul, Çiftbay Matbaası 1991; 267-275.
        Pilbeam SP. Mekanik Ventilasyon: Fizyolojik ve Klinik Uygulamalar. Çeviri: Çelik M, Besler MP, Helvacı A, Yalman A, Orhon ZM, Yaycı F. İstanbul, Logos 1999; 291-304.
      • Çok yazarlı ise; sıra ile bölümü yazan yazar(lar)ın soyad(lar)ı ve ad(lar)ı, bölümün adı, editör(lerin)ün soyad ve ad(lar)ı, kitabın ismi, basımevinin bulunduğu şehir, yayınevi, basım yılı, yazının başlangıç ile bitiş sayfa numaraları yazılır (Türkçe çeviriler için örneğe bakınız).
      • Yabancı, Türkçe ve çeviri kitap için örnekler

        Hull CJ. Opioid infusion for the management of postoperative pain. In: Smith G, Covino BG, (eds.)
        Acute Pain, London, Butterwoths 1985; 155-179.
        Saygın B. Sıvı replasmanı. (ed.) Çuhruk H,
        Anesteziyoloji ve Reanimasyon Ders Kitabı. Ankara, Öncü Limited 1995; 59-73.
        Kupeli I. Diabet ve Anestezi. Çeviri: Elar Z. In: Snow JC, (ed.)
        Anestezi El Kitabı, Çeviri Editörü: Elar Z, İzmir, Güven Kitabevi 1986; 315-324

10. Dergide yayımlanan metinlerin; etik, bilimsel ve hukuki sorumluluğu yazarlara aittir.
11. Dergide yayımlanan metinler için ayrı bir baskı verilmez. Yayına kabul edilmeyen metinler geri gönderilmez.

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INSTRUCTIONS FOR AUTHORS

1. Journal of Anesthesia is the official voice of the Anesthesiology and Reanimation Specialists Society. The Journal is published every three months and a volume consists of four issues.
2. This journal publishes original articles, case reports, brief reports, scientific panels, technical news, special articles, book reviews and letters to the editor related to Anesthesiology, Critical Care and Pain. Review articles by experts may be published upon invitation from the journal editorial board. Except the review articles requested by the editorial board, no review article will be accepted. Manuscripts, whose summaries were previously presented or published may also be accepted in full form provided that the previous publication or presentation is mentioned.
3. The languages of this journal are Turkish and English.
4. Manuscripts must be prepared and submitted in the rnanner described in "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" by The International Medical Journal Editorial Board, reprinted in *British Medical Journal 1988: 296: 401-5 or in Anestezi Dergisi 1995; 3: 7-12.*
5. Manuscripts in Turkish submitted to the journal should be suitable to the "Turkish Dictionary" and "New Spelling Rules" published by the Turkish Language Institution. Technical terms should be comformable to the "Turkish Medical Terminology" and the drugs mentioned should be written with their generic names in Turkish.
6. The manuscript should be neither published nor be submitted in order to be published in any other publication.
7. The Editorial Board has the right to correct, shorten, reject or send back the paper for revision.
8. Manuscript submission to the Anesthesia Journal,
   a. In order for the manuscript to be taken under consideration for publication, the copy of the "Publication Right Transfer Form" signed by all the authors stating that the manuscript has been read and approved by all the authors, and that they agree to transfer the copyright to the Journal of Anesthesia accompanied by the copy of the "Ethical Board Judgement Document" should be sended to anestezidergisi@yahoo.com web adress. The submissions without these won't be taken under consideration.
   b. All the articles/papers should be submitted together with conflict of interest statement: the financial support obtained from research funds, medicine or equipment contribution, etc. should be definitely stated and signed by the authors on a separate page to clarify any issues related to conflict of interests.
9. General Guidelines and Set-up Instructions
   a. The manuscript should be written with Times New Roman type script, in 12 font (The table content, diagram and graphic subtitles with 10 font), with margins of 2.5 cm on each side ,on top and on the bottom and double space. Paragraph indents should be avoided and each paragraph must be separated with one line.
   1. **TITLE PAGE:** The title page should contain,
      - **The title of the article**
      - **First name, middle initial and last name of each author**
      - **Name of departments and institutions** to which the work should be attributed.
      - **The date of submission**
      - **Name, address, e-mail adres, telephone number and fax number of author** responsible for correspondence concerning the manuscript
   2. **ABSTRACT AND KEY WORDS**
      - The second page should provide a structured abstract, consisting of Objective, Method, Results and Conclusion in separate paragraphs and of not more than 250 words.
      - Key (Indexing) words: Below the abstract, provide (and identify as such) up to 5 key words in Turkish and in English from Index Medicus in alphabetical order under the heading keywords, which will assist indexers in cross indexing the article.

   b. **TEXT**

   1. Articles

      The text of observational, experimental and general articles is divided into sections with the following headings: Introduction, Material and Methods, Results, Discussion, Acknowledgements (if desired), References, Tables and Figures. The tables and figures should be arranged as a list in the first page after the References. The graphics should be named and listed as figures. The numbers of the tables and figures should be stated within the text inside parentheses where the subject is mentioned (Tables with roman, figures with arabic numbers). The subtitles and/or the titles with abbreviations should be written afterwards providing at least one table, figure and graffic per page. If another publication has been quoted, references for those table and figures should also be stated. If abbreviations have been used for the table and figures the full forms should be stated with the titles in another page.

      The units should be given using subscripts (eg: mg kg^{-1} h^{-1}) instead of (mg/kg/h).

   2. Case reports

      Case reports should be sub-divided as follows: Introduction, Case Report, Discussion, References (if needed tables, figures and pictures).

   3. Letters to the Editor

      Letters related to previously published articles or technical issues having no more than 750 words, 5 references and 1 table could be sent to the editor. Preliminary reports or short research articles as well as technical reports could also be accepted for publication. The editor is free to publicate or not to publicate these letters.

   4. Scientific Abstracts

      For scientific abstracts of articles previously published in international journals (Turkish Scientific Research Foundation Classification A, B or C) a copy of the original article and Turkish translation of the abstract should be submitted.

   c. **REFERENCES**

   1. For Periodical Publications
      - During the selection of references the usage of Turkish references should also be considered.
      - References should be numbered in parantheses according to the first time they appear on the main text (if the references aren't in order with ", ", and if there are more than two and with consequent numbers a "-" is placed between the first and last number within the parantheses)
      - During writing the references, the first letters of the author's name and surname (if the number of the authors is six or more after writing the first three, "et all" is added), the name of the abstract, the abbreviated name of the journal according to the Index Medicus, year of publication, the number of the volume, the page numbers of the first and last page.

        Example; Brown BR, Gandolphi A. Adverse effects of volatile anaesthetics. Br J Anaesth 1987; 59: 14-19.

   2. For Books
      - If written by one author, first the surname and name of the author, the name of the book, the city of the printing house , the year of printing, the number of the first and last page are written without abbreviations in this order (For Turkish translations look at the example).
      - Examples for foreign, Turkish and translated books,

        Moore DC. Regional Block. Springfield-Illious, CharlesC. Thomas 1979; 155-172. Esener Z. Klinik Anestezi. Istanbul, Çiftbay Matbaası 1991; 267-275.

        Pilbeam SP. Mekanik Ventilasyon: Fizyolojik ve Klinik Uygulamalar. Çeviri: Çelik M, Besler MP, Helvacı A, Yalman A, Orhon ZM, Yaycı F. İstanbul, Logos 1999; 291-304.
      - If with multipl authors, the surnames and names of the authors who wrote the chapters, the name of the book, the city of the printing house, the year of printing, the number of the first and last page are written without abbreviations in this order (For turkish translations look at the example).
      - Examples for foreign, Turkish and translated books,

        Hull CJ. Opioid infusion for the management of postoperative pain. In:

        Smith G, Covino BG, (eds.) Acute Pain, London, Butterworths 1985; 155-179.

        Saygın B. Sıvı replasmanı. (ed.) Cuhruk H, Anesteziyoloji ve Reanimasyon Ders Kitabı. Ankara, Öncü Limited 1995; 59-73.

        Kupeli I. Diabet ve Anestezi. Çeviri: Elar Z. In: Snow JC, (ed.) Anestezi El Kitabı, Çeviri Editörü: Elar Z, İzmir, Güven Kitabevi 1986; 315-324.
10. The authors are responsible from the ethical, scientific and legal responsibility of the contents of the manuscripts.
11. The hard copy of the published manuscripts is sent to the authors. Rejected manuscripts are not sent back.

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Değerli yazar;

Aşağıda makalenin her bölümü için uygulanması gereken yazım kuralları genel olarak belirtilmiştir. Makalenizin tamamladıktan sonra bu kontrol listesinden ☑ şeklinde işaretleyerek kontrollerinizi tamamlayabilirsiniz.

Anestezi Dergisi

1	**Etik kurul karar yazısı**			
2	**Çıkar çatışması bildirimi**			
3	**İmzalı olur belgesi**			
4	**Başlık, Kısa Başlık, Yazarlar, Türkçe Özet, Anahtar Kelimeler, İngilizce Başlık, İngilizce Özet, Anahtar Kelimeler, Amaç, Yöntem, Bulgular, Tartışma, Kaynaklar**		• Herbiri ayrı sayfada olacak • Başlıklar büyük harf ile ve sayfanın soluna dayanmış olacak • Başlık sayfasından itibaren sağ alt köşede numaralandırılmış olmalıdır	
	4.1	**Başlık, Kısa Başlık, Yazarlar**	• Tek sayfada ortada olacak	
	4.2	**Türkçe ve İngilizce Özet**	• En fazla 250 kelime • İngilizce başlık ve özet, Türkçe başlık ve özetin tam karşılığı olmalıdır • Amaç, Yöntem, Bulgular ve Sonuç içeriği ile dört paragraf olmalıdır • İngilizce özet için; "Objective, Method, Results, Conclusion" • Kaynak kullanılmaz	
	4.3	**Anahtar Kelimeler**	• MeSH' e uygun en fazla 5 adet	
	4.4	**Giriş**	• Sonuç açıklanmaz	
	4.5	**Gereç ve Yöntem**	• Etik kurul onayı belirtilmelidir • İlaç isimleri baş harfi küçük olmalıdır ve farmakolojik ismi kullanılmalıdır • Kısaltmalar ilk kullanıldığında açıklanmalı ve parantez içinde belirtilmelidir • im, iv, po, sc • Birimlerde SI sistemine uyulmalıdır • Birimlerde (.) veya (/) kullanılmaz; mg kg^{-1}, L dk^{-1} m^{-2} veya mmHg gibi • İstatistik yöntem son paragrafta beliritilmelidir • Aritmetik ortalama veya orandan sonra (±) ile verilen değer açıklanmalıdır	
	4.6	**Bulgular**	• Tablo ve şekiller metinde geçiş sırasına göre, tabloların sırası romen rakamıyla, şekillerin sırası arabik rakamlarla numaralandırılmalıdır. • Simgeler sıralı (*, +, #, gibi) olmalıdır • Şekil ve Tablo ➢ Tablolar başlığı ile ayrı sayfada başlık, açıklama ve dipnotu ile olmalıdır ➢ Sayfalar numaralandırılmamalıdır ➢ Şekillerde çerçeve olmamalıdır, beyaz zemin olmalıdır • Resimler ➢ 130X180 mm, siyah-beyaz, arkasında makale başlığı, üste gelecek kısım ok ile belirtilmiş olmalıdır	
	4.7	**Tartışma**	•	
	4.8	**Kaynaklar**	• Metinde geçiş sırasına göre cümle sonunda ve parantez içinde numaralandırılır • Yazar adı ile metinde geçiyor ise isimden hemen sonra olmalıdır • Dergi kısaltma isimleri IM veya SCI'e göre olmalıdır • Altı ve daha fazla yazarlı makale ise ilk üçden sonra et al veya ve ark yazılmalıdır • Derleme için 80, orjinal makale için 40, olgu sunumlarında 15 ve editöre mektupta 5'i geçmemelidir • Kaynak yazım kurallarına uymalıdır	
Genel			• Times New Roman; başlık 12 punto bold, metin 12 punto, paragraf arası bir satır boşluk, paragraf girintisi yok, 2 satır aralığı	

Kaynaklar için örnekler	
Makale	Yazarlar, ….. .Makale adı. Dergi adı Yıl; sayı: sayfa.
Ekli sayı(son iki yıla ait olmak kaydı ile)	Yazarlar, ….. .Makale adı. Dergi adı Yıl; sayı(supp no): sayfa.
Kitap	Yazarlar. Kitap adı. Kaçıncı baskı. Baskı yeri: firma; yıl, sayfa.
Kitap bölümü	Yazarlar. Bölüm başlığı. In: kitap adı. Kaçıncı baskı. Baskı yeri: firma; yıl, sayfa.
Elektronik ortam-son yıla ait ise	Başlık, site adı, gibi bilgi. The web site: url…
Kuruluş	The Intensive Care Society… başlık:guideline(varsa). Dergi yıl; sayı: sayfa.

ANESTEZİ DERGİSİ
ISSN 1300-0578

YAYIN HAKKI DEVİR FORMU

Makale başlığı .....

.....

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.....

Yukarıda başlığı belirtilen makalemiz daha önce yayınlanması ve/veya değerlendirilmesi için herhangi başka bir dergiye ve/veya yayınevine gönderilmemiş, ya da daha önce kısmen veya tamamen yayınlanmamıştır. Aşağıda adı-soyadı ve imzaları olan yazarlar, makaleyi Anestezi Dergisi yazım kuralları doğrultusunda düzenleyerek son halini okumuş ve yayın hakkını Anestezi Dergisi'ne devrettiklerini onaylamışlardır.

Yazarlar (makalede belirtilen sıra ile)

ADI-SOYADI	**İMZA**
1.	
2.	
3.	
4.	
5.	
6.	
7.	

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25 APRIL 2014, Hall 2

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ORAL PRESENTATIONS

OP - I 1

DOES PARENTAL ANXIETY AFFECT POST-OPERATIVE DELIRIUM IN PRESCHOOLERS?

E. ERKILIÇ, E. KESİMCİ, C. DÖĞER, T. GÜMÜŞ, O. KANBAK

Ankara Atatürk Training and Research Hospital, Turkey

Objective: *Stress and anxiety associated with surgery and anesthesia have importance particularly in pediatric population. The aim of the present study was to evaluate the relationship between pre-operative parental anxiety and post-operative delirium developing in pediatric patients undergoing surgery.*

Method: *A total of 30 patients undergoing elective surgery, with ASA I-II and 3 to 7 years of age were included in the study after obtaining approval from the local ethics committee along with verbal and written consent of the parents. While the patients were premedicated, a questionnaire was administered to one of the parents by an anesthesiologist. Anesthesia was induced with sevoflurane via face mask, and then the patients were administered with muscle relaxants, and endotracheal intubation was performed. For post-operative analgesia, we administered IV 15 mg/kg acetaminophen 30-45 minutes prior the end of the operation. After extubation, the patients were transferred to the recovery room, and modified Aldrete scoring scale, Watcha behavior scale, pediatric anesthesia early delirium scale, and VAS according to facial expression were evaluated.*

Results: *The parents with a higher anxiety score had more concerns about surgery, anesthesia, and length of hospital stay after the surgery, but the level of anxiety was lower for post-operative therapy and the duration of preoperative fasting. There was no association between parental anxiety and gender. The Watcha behavior score was higher in girls. Requesting information from the doctor was inversely correlated with the education level.*

Conclusion: *There are numerous studies in the literature evaluating parental anxiety and child anxiety. In this pilot study, descriptive data and family characteristics did not significantly affect early delirium scores and the severity of pain in the children. We believe that larger sized studies are required for more reliable and significant results.*

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OP - I 2

CONTINUOUS RENAL REPLACEMENT THERAPY (CRRT) IN CHILDREN

A. IBRAHIMI, S. KUCI M. ZEKA, E. BEJKO, S. LLAZO, E. BULKU, I. OHRI

Anesthesiology and ICU service in cardiac and vascular surgery
Mother "Teresa" Hospital Tirana – Albania

Objective: *Continuous renal replacement therapy (CRRT) is the preferred choice for blood purification and volume control in critically ill children. The reported overall survival rate for children requiring CRRT is 60%, and mortality in infants is comparable with that of older children and adolescents. Since 2011 in our clinic we started using CRRT in adult patients in whom we diagnosed acute renal failure after operation. Now we have a good experience treating this kind of patients. We will present a case of one pediatric patient who developed multi organ failure after cardiac surgery.*

A 13-months-old patient with Down syndrome was referred to our centre with a diagnosis of Complete atrio-ventricular canal type C, and he underwent surgical repair. After operation, due to high doses of inotropes and vasoconstrictor drugs the patient developed acute renal failure. We decided for the first time in our clinic to do CRRT for pediatric a patient.

Method: *Cannulating the right subclavian vein with double lumen 7 Fr central vein and priming with blood and albumin the circuit of Prisma filter AN 69 M- 60 we started therapy with these parameters: Blood Presure – 40 ml min^{-1}, PFR 20 ml $hour^{-1}$, Replacement 150 ml $hour^{-1}$ dialyzate 150 ml $hour^{-1}$, anticoagulation with heparin keeping ACT between 150 -180 sec. Temperature of the patient was kept at 35,5 °C to reduce the energy consumption and the work of heart.*

Result: *After 24 hour of therapy the urine output started in good flow and the dose of inotropes drugs started to reduce. We stopped CRRT and 5 days after surgery we extubated the patient in good condition and transferred to general pediatric ICU.*

Conclusion: *For treating renal failure we had possibilities in order to resolve this complication: peritoneal dialysis and CRRT. We chose to perform CRRT because of hemodynamic instability and presence of ascites due to cardiac failure. CRRT is chosen as a method for for treating acute renal failure in postoperative period in pediatric cardiac patients with severe hemodynamic instability due to acute cardiac failure.*

OP - I 3

COMPARISON OF LMA AND I-GEL USED IN OUTPATIENT UROLOGIC OPERATIONS

A. SARAÇ, H. YAZICIOĞLU, A. ÖZGÖK

Turkey Yüksek Ihtisas Teaching & Research Hospital, Anesthesiology & Reanimation Clinic, Ankara, Turkey

Objective: *Airway management is the most important part of anesthesia care. Problems that arise during this phase of anesthesia create the basics of anesthesia related complications.*

Searching for alternative airway devices for airway control is still going on. Recently many supraglottic airway devices (SGAD) have been developed for this purpose. It is necessary to evaluate the efficiency and safety of these new devices and compare them with the old ones. In this study; we compare the frequently used SGAD s; LMA and I-gel in patients undergoing outpatient urologic surgery.

Method: *Following Hospital Ethics Commitee approval and sample size determination by our statistician we did our randomized, envelope method, uniblind study between 01/10/2012 and 01/04/2013. One hundred and eight, ASA I-II, 18-70 year-old patients scheduled for outpatient urologic surgery were included in the study. Patients were randomly assigned into either Group I (LMA) or Group II (I-gel). Mouth opening, thyro-mental distance and neck circumference of the patients were measured. Other than routine monitorization, all patients were monitorized with BIS. Data were collected before induction and 1,2,3,5,10 min. following induction and at the end of the operation.*

All patients received i.v 2 mcgr/kg fentanyl, 1mg/kg lidocaine and 2.5 mg/kg propofol for induction. Loss of eyelash reflex, extremity movement; jaw relaxation and initiation of apnea were recorded. All of the SGAD were inserted by the same anesthesist while the patients were apneic. Patients who responded to the insertion of SGAD with swallowing, gaging or movement received additional 0,5 mg/kg propofol. A second attempt was made 30 sec after injection.

Hemodynamic data, ease of insertion, number of attempts and airway quality were all recorded. Hiccup and limb movement during insertion of the SGAD were assessed as undesirable responses.

Results: *There was no difference between the groups with respect to demographic, antropometric and clinical data. There was no difference in the number of insertion attempts, airway quality and limb movement between both groups. Success rate for the first attempt of insertion and airway quality was similiar in both groups.*

Ease of insertion and insertion time was better in LMA group. Hiccup was noticed more in I-gel group.

Conclusion: *It seems that I-gel has disadvantages as it has longer insertion time and more hiccup formation. This could be related to insufficient experience with this SGAD.*

Both SGADs were frequently used, safe devices. They can be successfully and easily used in difficult airway scenarios by inexperienced staff .

OP - I 4

THE SEDATION TECHNIQUE FOR CHILDREN UNDERGOING RADIOTHERAPY AND LINEAR ACCELERATOR PROCEDURES.

R. KOTOCI, R. DOMI, B. ARAPI, E. BOLLANO

UHC"Mother Teresa", Albania

Objective: *Radiotherapy procedure is an essential step in the battle against cancer. A multidisciplinary team including radiotherapy specialists, pediatricians and anesthesiologists can guarantee the success. Children cannot always be cooperative depending on their age, so sedation may be useful.*

Method: *Eleven children, 2.5-5 years of age, suffering from intracranial tumors were included in the study. We used a sedation technique based on single dose of midazolam 0.03-0.05 mg kg^{-1} combined with propofol 0.1-0.15 mg kg^{-1}. The Modified Ramsay Sedation Scale was used to monitor the sedation level. The desired sedation level was 5b-6c. Monitoring included ECG, heart rate, respiratory rate, capnography, non invasive blood pressure and saturation.*

Results: *The desired sedation level was achieved and the procedure was uneventful in all the patients. Only one child was complicated by desaturation (SpO_2 under 90%) secondary to decreased respiratory rate (respiratory rate under 20/min). The baby was ventilated for approximately 90 sec, not needing mechanical ventilation and intubation.*

Conclusions: *We strongly recommend the combination of midazolam with propofol for sedation of children undergoing radiotherapy and linear accelerator procedures.*

OP - I 5

ANAESTHETIC MANAGEMENT IN A PATIENT WITH ATAXIA TELANGIECTASIA FOR DEEP BRAIN STIMULATION TO TREAT DYSTONIA: CASE REPORT

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Objective: *Ataxia Telangiectasia is an autosomal recessively transmitted neurodegenerative disorder with progressive movement disorders. Because of severe movement disorders in these patients, anesthetic management for deep brain stimulation requires special attention. The authors aim to present their experience for this rare condition.*

Case Report: *A twenty-seven years old man with severe dystonia was hospitalized for pallidal stimulation procedure (Deep Brain Stimulation) in neurosurgery department. The patient had the diagnosis of Ataxia Telengiectasia for twenty-two years. In physical examination, dystonic posture in right arm, bilateral flexion dystonia in lower extremities, high amplitude muscle jerks, and truncal opisthotonus were detected. To mount the stereotactic frame to the head, scalp block was performed after 3mgr iv midazolam and 80 mgr propofol injections. The standart monitoring and BIS monitoring were done. The patient was intubated after propofol and remifentanyl induction without muscle relaxants since neurological monitoring by examination was crucial for safe procedure. The BIS values were kept between 80-100 for neurological examination. The electrodes and the stimulator were placed properly without any per-operative complication. Intraoperative brain CT was also performed. The patient was transferred to intensive care unit after extubation.*

Conclusion: *The anesthetic management in surgery for movement disorders requires special attention. The patient must be awake in special conditions like severe dystonia in the Ataxia Telengiectasia and in such cases BIS monitoring is extremely helpful.*

OP - I 6

SPINAL ANESTHESIA IN CHILDREN WITH CONGENITAL MUSCULAR DYSTROPHY (CMD) RISK OR ADVANTAGE ?

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Objectives: *Spinal anesthesia in children is rare, but applicable. Application of spinal anesthesia in children with congenital muscular dystrophy.*

Methods: *Two cooperative siblings having congenital muscular dystrophy with moderate contractions and good psychic state were included in the study. Parents were informed about the priorities and risks of spinal anesthesia. The first child was 28,5 kg and at 12 years of age; the second was 32,5 kg and at 14 years of age. Creatine kinase (CK) levels were within normal limits (80 for the first patient, 85 for the second patient). Intrathecal anesthesia was applied with isobaric bupivacaine 0.5% of 8.5 mg in the first child and 10 mg in the second child. Monitoring included SpO_2, heart rate, non-invasive blood pressure and urine output.*

Results: *Anesthesia, especially analgesia was good in both children who underwent relaxation of the sub-knee muscles from spastic pareses. Operation time in both cases was about 40 min.*

Conclusions: *Sub-minimum dosage of bupivacaine 0.3 mg/kg in this intervention with this pathology had achieved the desired purpose. It can be recommended as a helpful method.*

OP - I 7

CRITICAL CARE MANAGEMENT IN PEDIATRIC TRAUMA

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Objective: *Traumatic injury remains the leading cause of death and a major cause of disability among children all around the world. Moreover, pediatric trauma represents a difficult challenge for the physician, especially because early and aggressive critical care management is the cornerstone for optimal treatment and outcome. Blunt trauma is present in more than 95% of cases, and a traumatic brain injury (TBI) is noted in 85% of the cases, either isolated or associated with other extracranial injuries. The preponderance of TBI explains why two of the major goals of initial critical care management are prevention of and protection against secondary brain damage. Secondary brain insults, which are mainly due to systemic hypotension and hypoxia, worsen neurologic outcome. Therefore, in this population of trauma patients, where a life-saving emergency surgical procedure is required in less than 5% of cases, on-site stabilization, including field tracheal intubation and hemodynamic resuscitation before transportation, should be preferred rather than the "scoop and run" policy. Following on-site stabilization, pediatric trauma patients should be transported to a pediatric trauma center rather than to the next available general hospital. After in-hospital stabilization, in most cases, the option of conservative surgical management will be chosen.*

Methods: *Children aged between 0-5 years, admitted to our hospital in the last 5 years were included in the study. All the children have been admitted to the intensive care unit for at least one night.*

Results:

Minor Trauma	Major Trauma
70%	30%

Enterial Nutrition	Parenteral Nutrition
15%	85%

Brain Injury	Abdominal Trauma	Bones fractures	Politrauma
78%	5%	2%	15%

From another Hospital	Casually
70%	30%

Intubated	Non intubated
15%	85%

Conclusions: *Pediatric trauma represents no more than 15% of overall traumatology, and fewer than 10% of the prehospital ambulance use for trauma. It explains why few studies include a significant number of pediatric patients and why trauma care providers often lack a sufficient level of self-confidence and expertise. Moreover, pediatric trauma definitively differs from adult trauma, in particular with regard to injury pattern, critical care, and surgical management principles. Although conservative surgical management has been challenged recently, it remains in most cases the key to definitive treatment.*

** Mihal Kerci and Brikena Dautaj contributed equally to this study.*

OP - I 8

DO WE NEED TO CHECK PSEUDOCHOLINESTERASE LEVEL ROUTINELY BEFORE SUCCINYLCHOLINE USE?

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Introduction: *In psychiatric diseases which do not respond to classical pharmacologic therapy, electroconvulsive therapy (ECT) could be used as an alternative treatment regimen. Succinylcholine is commonly used during ECT due to its shorter duration of action. Pseudocholinesterase hydrolyzes succinylcholine rapidly if it presents in sufficient amount and as a normal structure.*

Case report: *33 year-old female patient was diagnosed as schizophrenia. Multiple antipsychotic drugs were used during her treatment, but due to their extrapyramidal side effects psychiatrists could not achieve an acceptable remission period. In addition, she had suicidal thoughts. Since then she was scheduled to undergo 10 sessions of electroconvulsive therapy. In our clinic we do not check the level of pseudocholinesterase in preoperative period because of concerns about cost effectiveness. In first ECT session routine monitoring was applied. 1mg kg^{-1} propofol, 1mg kg^{-1} succinylcholine were administered to the patient. In apneic period she was ventilated with 100% oxygen via face mask. After an acceptable seizure period we noticed that she could not ventilate spontaneously although 30 minutes had passed from succinylcholine administration. So, the patient was intubated and mechanically ventilated for 6 hours. During this time her pseudocholinesterase level was found low. At the end of the 6^{th} hour, the patient was extubated. During remaining ECT sessions 0.3 mg kg^{-1} rocuronium, 2 mg kg^{-1} sugammadex were used for muscle relaxation and reversal of it. All the remaining ECT sessions were uneventful.*

Conclusions: *Although it is not warranted to check the pseudocholinesterase levels before using succinylcholine in all patients, in certain conditions like pregnancy, liver diseases or therapy with antipsychotic drugs, it may prove useful for the prevention of rare complications. However, being prepared and having the necessary knowledge and experience to deal with such conditions is probably more than enough.*

OP - I 9

MASK PHENOMENON AFTER ROBOT-ASSISTED PROSTATECTOMY: A RARE COMPLICATION OF ANESTHESIA

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The Trendelenburg position is the most commonly used position in robot-assisted laparoscopic prostatectomy (RALP). The perioperative complications associated with this position are more common with longer operation durations. In the present case, we report a rare complication of "mask phenomenon" occurring following extubation of a patient that has undergone RALP.

Case: *A 57-year-old male patient was prepared to undergo RALP. The patient's medical history was remarkable for diabetes mellitus (DM), hypertension (HT), and coronary artery disease (CAD), and the patient was using medications for these indications. The routine work-up revealed normal findings. The surgery lasted for 6 hours and 25 minutes and the patient was stable during the procedure; however, the patient developed bronchospasm after extubation. The patient was administered with 100% oxygen via face mask and 1 mg/kg prednisolone. Due to the persistence of bronchospasm, 200 mg/100 ml aminophylline was administered. The general condition of the patient and SpO_2 values improved and the patient was transported to the recovery room for further follow-up. Cold vapor application and O_2 administration were continued. The vital signs of the patient were stable during the follow-up period, and the patient was moved to the regular ward. At postoperative 6 hours, the patient developed petechial eruptions of various sizes in the periortibal area extending to the scalp that did not fade on pressure. The patient did not have petechial eruptions or erythematous plaques in other body parts. Dermatology consultation was performed. The dermatologist suggested that the patient had "petechiae secondary to Valsalva" and recommended to continue follow-up. Complete blood count, PT, aPTT, INR, and bleeding time were normal. The petechial eruptions faded the next day.*

Discussion: *The facial petechiae can occur as a result of rheumatologic, dermatologic, infectious, and traumatic factors. In addition, few case reports of facial edema and petechiae have been discussed secondary to cough, vomiting, and Valsalva maneuver. This condition has been defined as a "mask phenomenon". The present case developed petechiae in the postoperative period due to bronchospasm and cough in association with prolonged Trendelenburg positioning. Although the mask phenomenon is not considered to be a serious complication, it must be kept in mind that it can occur in patients developing postoperative bronchospasm as a complication of anesthesia.*

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OP - I 10

PERIOPERATIVE SUDDEN ARREST AND EXITUS IN A CHILD WITH MITRAL VALVE PROLAPSUS

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Obcective: *Sudden death is defined as "death within 6 hours after symptoms occur in a patient without any symptoms". Sudden death in children occurs mainly due to cardiomyopathies. In healthy children right ventricular arrhythmias may also cause sudden arrest and death. Sudden death due to mitral valve prolapsus is very rare and is thought to be resulted from ventricular arrhythmias.*

Case Report: *In this report we aim to present a case who died unexpectedly in the perioperative period. A 12 year old girl with familial adenomatosis polyposis was scheduled for elective total colectomy. She had previously had inguinal hernia and colonoscopy operations without any anesthetic problem. There was no major finding except mitral valve prolapsus on transthoracic echocardiography and Holter and no other abnormal findings. Anesthesia induction was done with propofol, rocuronium and fentanyl and was maintained with sevoflurane and remifentanyl. Vital signs were normal during the first 5 hours of operation. On 5th hour, hypotension occurred, followed by desaturation, bradycardia and cardiac arrest. Cardiopulmonary resuscitation (CPR) was started immediately. After return of spontaneous circulation, surgery was completed and then she was transferred to postoperative intensive care unit where therapeutic hypothermia was applied for 12 hours. She was weaned from the mechanical ventilation and was extubated on the first postoperative day. She was awake with Glasgow coma scale of 15 and hemodynamically stable after extubation. Eleven hours after extubation cardiopulmonary arrest re-occurred following a convulsion and ventricular fibrillation. CPR was continued for 4 hours, including defibrillation and placement of an internal pacemaker without any response.*

Conclusion: *Although sudden cardiac arrest and death are seen very rarely in seemingly normal children with no previous symptoms, preoperative diagnosis of asymptomatic patients can be difficult. Preoperative anesthesia assessment is important regarding previous sudden death history in family members. Also in perioperative management, early treatment of excessive bleeding, electrolyte imbalances, hypercarbia, hypoxia and acidosis are essential. Therefore an anesthesiologist should always be prepared for these uncommon but devastating conditions.*

OP - I **11**

TRANSVERSUS ABDOMINIS PLANE BLOCK AS A PART OF MULTIMODAL ANALGESIA IN LAPAROSCOPIC CHOLECYSTECTOMY CASES

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Objective: *The aim of the present study was to evaluate intercostoiliac transversus abdominis plane (TAP) block and oblique subcostal TAP (OSTAP) block as parts of multimodal analgesia in laparoscopic cholecystectomy cases.*

Methods: *A total of 60 patients were randomly and equally assigned to three groups: control group (PCA alone) (n=20), TAP (intercostoiliac TAP block+PCA) group (n=20), and OSTAP (oblique subcostal TAP block+PCA) group (n=20). All patients were given volatile anesthetic, oxygen in 50% air mixture, and remifentanyl infusion to obtain bispectral index (BIS) of 40-60 during the operations. Blocks were performed in USG guidance before the peritoneal insufflation with 20 ml (5mg/ml) lidocaine solution for each side. At the end of the operation, paracetamol (1 g) and diclofenac (75 mg) injections were given. Intravenous tramadol PCA was set (7 ml PCA boluses, 15 min lackout time with no basal infusion rate). VAS, PCA demand and total analgesic consumption during the first 24 h were recorded.*

Results: *Control group had a higher demand frequency than TAP and OSTAP groups at T1, T6, and T12, and higher demand than TAP at T7 ($p<0.01$). It had also a higher demand frequency than OSTAP group at T2 and T3 ($p<0.05$ and $p<0.01$ respectively). OSTAP group had lower VAS scores than TAP and control groups at T1 (Chi-square: 10.116;$p<0.05$), T2 (Chi-square:12.014;$p<0.05$), T4 (Chi-square: 9.273;$p<0.05$), T6 (Chi-square:13.894;$p<0.05$). OSTAP group had lower VAS scores than control group at T3 (Chi-square: 7.849;$p<0.05$), and had lower VAS scores than TAP and control groups at T5 (Chi-square:8.573;$p<0.05$). There was a positive correlation between VAS and total analgesic consumption among groups at T3 (r:+0.381;$p<0.05$), T4 (r:+0.464;$p<0.05$), T5 (r:+0.331;$p<0.05$), T6 (r:+0.332;$p<0.05$). There was a negative correlation between VAS scores at T6 and total intraoperative remifentanyl use (r:-0.336;$p<0.05$). There was a significant difference among groups in total analgesic consumption (Chi-square:20.078; $p<0.05$). Control group had a higher total analgesic consumption than TAP and OSTAP groups.*

Conclusion: *OSTAP block added benefits to postoperative analgesia in laparoscopic cholecystectomy cases with lower VAS scores and reduced total analgesic consumption. It can be considered as a part of the multimodal pain therapy in these patients.*

OP - I **12**

INGUINAL HERNIOPATHY IN TURKISH POPULATION

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Objective: *Chronic pain is defined as pain arising 6 months after inguinal hernia repair. Chronic pain reported incidence varies from 0-63%. The aim of this study was to assess the risk factors of chronic pain seen after open inguinal hernia repair in Turkish population.*

Methods: *Prospective study was conducted in 296 patients undergoing open inguinal hernia repair. Self administered questionnaires were given to the patients who would have inguinal hernia operation on the operation day, 30 days and 6 months after operation. The first questionnaire established the incidence of preoperative pain, it's characteristics and duration. The second characterized acute pain and it's duration. Questionnaire administered at six months after the operation defined characteristics of pain and treatment modality that was administered to patients suffering from pain.*

Results: *Preoperative inguinal hernia associated pain was reported by 75.7% of the patients who filled in the 1st questionnaire. There was no significant relationship between pain and age-gender ($p>0.05$). Preoperative pain had mostly neuropathic characteristics. 67.9% of second questionnaire repliers suffered from acute early postoperative pain. This pain sensation did not have a significant relationship with age and gender, as well ($p>0.05$). Among patients who filled in the 3rd questionnaire, 25.7% had chronic pain that was significantly seen in younger age and early postoperative pain sufferers ($p< 0.05$). From these patients who had a chronic pain, 56.5% sought further medical help from their general practitioner or surgeon. 15.7% attended their surgeon for further surgery.*

Conclusion: *Pain is commonly seen six months after open inguinal herniography. Early postoperative pain and younger age are major predictors of chronic pain that patients' suffer six months after open inguinal hernia repair.*

OP - I **13**

ANAESTHETIC MANAGEMENT OF A LOW BIRTH WEIGHT INFANT PRESENTING WITH INTRAPERICARDIAL IMMATURE TERATOMA

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Introduction: *Teratomas are rarely seen primary cardiac congenital tumors often present with symptoms by exerting pressure on the structures of the cardiovascular and/or respiratory system at birth and can potentially be fatal. A case of intrapericardial immature teratoma in a low weight premature neonate diagnosed with fetal echocardiogram and its successful surgical and anesthesia managements are presented.*

Case Report: *A 30-year-old healthy woman, primigravida, delivered at 32 weeks of gestation (WOG) a female baby weighing 1.95 kg. At 22 WOG the fetal ultrasound confirmed a 3-cm cystic intrapericardial heterogeneous mass in the mediastinum, originating from the left atrium and causing pericardial effusion. Because of prematurity and intrapericardial lesion, she was intubated and monitored in the neonatal intensive care unit (NICU) before the operation. It was shown on computed tomography angiography that the teratoma was standing above all of anterior mediastinum and covering the pericardium. The baby was operated on the 3rd day of her life. The preoperative heart rate was 165 beats/min and systolic blood pressure was 56 mmHg. The oxygen saturation before the induction was 89%. General anesthesia was maintained with oxygen, sevoflurane, 1 mg midazolam, and 1 mg vecuronium. The pericardium was opened via a midsternotomy and the mass was completely removed without cardiopulmonary bypass. The extracted lesion was approximately 4x4x3.5 cm in size, located on the great vessels, covering the larger part of the left atrium and pressing on the left superior lobe of the lung. Post-operatively she was transported to NICU, intubated and in normal sinus rhythm without any vasoactive drug support. She was extubated on the postoperative 2nd day. The pathological examination revealed the diagnosis of immature teratoma, grade II.*

Conclusions: *In this patient, the teratoma was present on a critical area. Surgical removal was not only potentially lifesaving, but also diagnostic. Even in the premature newborns like this patient, general anesthesia can be maintained in a safe way with a successful team of anesthesiologists and surgeons in a multidisciplinary manner.*

OP - I **14**

TRANSCUTANEOUS ELECTRICAL NERVE STIMULATION OF LUMBAR PLEXUS AND SCIATIC NERVE THROUGH ANATOMICAL LANDMARKS FOR POSTOPERATIVE PAIN THERAPY IN FRACTURED HIP SURGERY CASES

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Objective: *The aim of the present study was to evaluate the effect of transcutaneous electrical nerve stimulation (TENS) on postoperative acute pain, comparing surgical field and surface of anatomical landmarks for lumbar plexus and sciatic nerve stimulation in fractured hip surgery cases.*

Methods: *Sixty-nine patients (39 male and 30 female) scheduled for hip surgery were randomly enrolled into lumbar plexus+sciatic nerve landmarks TENS (LS-TENS); surgical wound TENS (SW-TENS); or PCA alone. All patients received combined spino-epidural anesthesia and epidural fentanyl PCA. TENS was standardized with a modulated frequency, intensity as high as the subject could tolerate, and electrodes placed on either lumbar+sciatic nerve tracing unilaterally or on either side and parallel to the surgical wound, and applied every 2 hours for 30-40 min for 48 hours postoperatively. VAS, Ramsey sedation scores, frequencies of PCA demand and delivery counts, and total analgesic consumption were compared among groups at T0 (end of the operation), T1 (15. min), T2 (30. min), T3 (1. h), T4 (2. h), T5 (6. h), T6 (12. h), T7 (24. h), T8 (48. h).*

Results: *VAS and PCA demand were greater in the control group when compared with SW-TENS group at T2 ($p<0.05$). VAS was lower in the LS-TENS group than SW-TENS group at T7 ($p<0.05$), and PCA demand was lower in the LS-TENS group than SW-TENS group at T6 ($p<0.05$). Total fentanyl consumption was significantly lower in LS-TENS group than the control group ($p<0.05$).*

Conclusion: *TENS of the anatomical landmark of lumbar plexus and sciatic nerve can significantly reduce postoperative acute pain and add a significant contribution to reduce opioid consumption in the postoperative period in fractured hip surgery.*

OP - II **1**

REVIEW OF EFFECTIVITY OF POSTOPERATIVE PERIPHERAL NERVE BLOCKING ON POSTOPERATIVE PAIN SCORES OF ORTHOPEDIC SURGERY PATIENTS AT PEDIATRIC AGE

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Objective: *Peripheral nerve blocks (PNB) can be used to provide adequate surgical anesthesia, and/or postoperative analgesia of pediatric patients. It causes less physiological stress and is associated with rapid recovery and early discharge from hospital. During peripheral nerve blocks, ultrasound (USG) guidance enables the practitioner secure and accurate needle positioning and the monitoring of local anesthetic distribution in real time. It provides direct visualization of nerves which are located superficially at pediatric age, and offers a high success rate of nerve blocking with less side effects. The aim of this study was to evaluate the efficacy of ultrasound guided peripheral nerve blocks, used for postoperative analgesia after orthopedic surgery of pediatric patients.*

Methods: *Twenty-seven patients (ASA 1-2), between the ages of 2-18 years, who were scheduled elective orthopedic surgery under general anesthesia were included to the study. Sensory and motor nerve blockades were assessed on the femoral (n=8), sciatic (n=4), supraclavicular (n=7), interscalene (n=5) and brachial (n=3) nerves with 2 % bupivacaine + 1% prilocaine (0,1-0,4 ml/kg). Visual analogue scale (VAS), nausea, vomiting, pain relapse and possible complications were recorded at 1, 2, 6, and 24 hours after completion of the block and in the recovery room.*

Results: *In all cases and in all types of nerve blocks, VAS scores were increased steadily over the controls (p<0,001). No significant differences in postoperative pain levels were detected between the first and the second hour, than the baseline (0 th hour). Median onset time of pain and 1^{st}-2^{nd}-6^{th}-24^{th} h VAS did not differ between nerve block groups. Median onset time of pain was 9 hours at all groups. Nausea and vomitting was reported at 41.7% of all patients. VAS scores at 1^{st}-2^{nd}-6^{th}-24^{th} h did not differ within the same nerve block group (p>0,001).*

Conclusion: *In this study, postoperative ultrasound guided peripheral nerve blocks were effective in the prevention of postoperative pain of orthopedic patients at pediatric age. USG guidance in nerve blocks seems to be improving the quality and success of the blocks.*

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OP - II **2**

EFFECTIVENESS OF INTRAARTICULAR PULSED RADIOFREQUENCY NEUROTOMY FOR THE TREATMENT OF SACROILIAC JOINT PAIN

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Objective*: In this study, we aimed to retrospectively evaluate the effectiveness of pulsed radiofrequency (PRF) intraarticular and L5-dorsal ramus (L5DR) neurotomy to treat intractable sacroiliac joint (SIJ) pain.*

Methods: *The medical charts of thirty-six patients with intractable SIJ pain who underwent treatment with PRF intraarticular and ipsilateral L5DR neurotomy were indentified. Patients were selected for treatment based on physical examination and positive response (≥50% pain relief) to an intraarticular SIJ block. PRF was applied to the SIJ and L5DR for 15min at 2Hz with a pulse width of 10ms and 65V under flouroscopy. Visual analog scale (VAS) pain scores, medication usage and quality of life were retrospectively evaluated before and, 3 weeks, 3 and 6 months after the treatment. After 6 months, patients' satisfaction levels were determined.*

Results: *A significant decrease in mean VAS scores from baseline was observed in all follow-up periods, as follows: 7.6±1.4 to 2.3±1.1, 1.6±1.0, and 2.1±1,1 respectively (p<0.001). 3 weeks, 3 and 6months after the treatment, patients' quality of life rates were as follows; for "much improved" 86.1%, 86.1%, 86.1%, for "improved" 8.3%, 13.9%, 11.1%, and for "same" 5.6%, 0%, 2.8% respectively. Patient satisfaction was very high (97.2%). No serious adverse effects or complications were encountered.*

Conclusions: *PRF intraarticular and ipsilateral L5DR neurotomy appears to be an effective and safe intervention treatment with lower complication rate for intractable SIJ pain. Randomised controlled studies should be carried out to confirm these results.*

OP - II **3**

EVALUATION OF TWO DIFFERENT MORPHINE DOSES WHICH ARE ADDED TO LOCAL ANAESTHETIC USED IN SPINAL ANAESTHESIA FOR CAESAREAN BY COMPARING WITH THE CONTROL GROUP

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Objective: *The current study aimed to evaluate analgesic effectiveness of intrathecally administered two different morphine doses as 0.05 and 0.1 mg and to determine the morphine dose that provides the most effective analgesia with the minimal postoperative side effects.*

Method: *This prospective, randomized and double-blinded study includes 165 ASA I-II patients undergoing elective caesarean section. The patients were divided into three groups as Group I, intrathecal 10 mg of heavy marcaine, Group II, morphine 0.05 mg added to 10 mg of heavy marcaine (bupivacaine) and Group III, morphine 0.1 mg added to 10 mg of heavy marcaine (bupivacaine). Intramuscular diclofenac sodium 75 mg twice daily was administered to all patients. Patients with VAS scores of 5 and above were administered meperidine 50 mg in each time, not exceeding a daily total dose of 200 mg. Patients were monitored for 24 hours postoperatively. In rest and motion VAS scores, the postoperative first analgesic request time and total analgesic doses were recorded. Side effects such as nausea-vomiting, itching, and respiratory depression were recorded.*

Results: *Postoperative VAS values, the first analgesic request time and total analgesic dose in rest and motion were significantly low in morphine administered groups in comparison with the control group. No significant difference between two morphine doses of 0.05 and 0.1 mg were observed in terms of these parameters. In the morphine 0.1 mg group, nausea-vomiting and itching incidences were significantly more than the morphine 0.05 mg group. No respiratory depression was observed.*

An intrathecal 0.05 mg of morphine provided the same analgesic effectiveness with 0.1 mg of morphine. Morphine induced side effects like itching, nausea-vomiting were observed less in 0.05 mg morphine group when compared with 0.1 mg morphine group.

Conclusion: *There are studies which show that use of intrathecal morphine provides an effective analgesia after surgery and lowers the use of additional analgesics. At these studies, the minimal analgesic dose with minimal side effects was found as 0.1 mg(1). In the current study the ideal dose with minimal side effects was found as 0.05 mg.*

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OP - II **4**

THE EFFECT OF TWO DIFFERENT LOCAL ANESTHETIC VOLUMES ON RESPIRATORY FUNCTION IN ULTRASOUND-GUIDED INFRACLAVICULAR BRACHIAL PLEXUS BLOCK

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Objective: *Hemidiaphragmatic paresis (HDP) is one of the well-known side effects of interscalene brachial plexus block. Studies showed that HDP may also occur following supraclavicular and infraclavicular blocks (ICB). In this study, we aimed to compare the respiratory effects of two different volumes of local anesthetics (LA) during ultrasound-guided ICB.*

Method: *After Ethical Committee approval and informed patient consent, 36 adult patients undergoing hand, forearm and elbow surgery were included in the study. Twenty five ml (12 ml of 0.5% levobupivacaine + 12 ml of 2% lidocaine + 5 mcg of (1 ml) epinephrine) or 35 ml (17 ml of 0.5% levobupivacaine + 17 ml of 2% lidocaine + 5 mcg of (1 ml) epinephrine) of LA solution was used for the study. An U-shaped LA spread was aimed during ultrasound-guided ICB. Spirometric assessments (FEV1, FVC ve PEFR) were done at baseline and at 10., 20, and 30. minutes following block.*

Results: *Demographic data of the groups were comparable ($p>0.05$). No significant differences were found in FEV1, FVC ve PEFR values between groups in any measurement periods ($p>0.05$). Time to first analgesic requirement, duration of motor blockade, patient satisfaction, block success and requirement of general anesthesia were also similar between groups ($p>0.05$).*

Conclusion: *Two different LA volumes (25 ml and 35 ml) have similar respiratory effects in ultrasound-guided ICB*

OP - II **5**

INTRACRANIAL ACUTE SUBDURAL HEMATOMA AFTER SPINAL ANAESTHESIA

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Introduction: *Intracranial subdural hematoma is a rare but important complication of spinal anaesthesia. Because the initial symptoms are similar to post-dural puncture headache, its diagnosis is difficult and often missed. In this case report, our purpose was to draw attention to the probability of intracranial hematoma after spinal anaesthesia.*

Case: *A 26 year-old male patient was admitted to emergency room due to severe headache for four days, since the time he had had pilonidal sinus surgery with spinal anaesthesia. His headache was not postural and was resistant to analgesics. His neurological examination revealed no pathologic findings. His CT scan showed a subdural hemorrhage of 4 mm on the thickest side in the extraaxial space of the right cerebral hemisphere . The patient was observed by Neurosurgery Department for 2 days without any surgical intervention. One week later the patient had no neurological dysfunction on the outpatient clinic control.*

Conclusion: *Post-dural puncture headache is usually postural and relieves with symptomatic therapy such as analgesics, hydration and bed rest in a few days. Subdural hematoma should be suspected in the case of prolonged headache resistant to analgesics after dural puncture.*

OP - II **6**

IS ADMINISTERING GENERAL ANESTHESIA FOR CAESAREAN SECTION SAFE FOR A PREGNANT PATIENT WITH TAKAYASU ARTERITIS?

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Introduction: *Patient immobilization is important in radiotherapy (RT), especially because the treatment times can be lengthy. General anesthesia or deep sedation is generally required for pediatric patients during RT. Endotracheal intubation or laryngeal mask can be used to ensure the safety of patients. However, repeated applications can cause laryngeal, tracheal and oropharyngeal complications. These complications are less common in deep sedation because laryngeal mask or endotracheal tube is not placed. In this case, spontaneous breathing and airway reflexes should be protected during RT. Some complications such as desaturation, hypoxia, laryngospasm may occur in patients undergoing deep sedation. In this report, it is aimed to discuss the anesthetic approach to 54 pediatric patients who are administered repeated sedation undergoing RT.*

Method: *Data were collected from patient records between 2010 and 2014. Demographic data, diagnosis of primary disease, anesthetic technique and medications, complications, and RT dose were recorded.*

Results: *Fifty four patients were administered 871 sessions of sedation. RT was applied to 49 patients in the supine position. Four patients were in prone position and one patient was in flank position. None of patients were intubated. Thirty four patients received ketamine and midazolam for sedation. Ketamine was used in nine patients. Other methods were applied for thirteen patients. Sedation related complications were observed in eight patients. Six patients had transient oxygen desaturation and increased secretion. Shivering was seen in two patients.*

Conclusion: *We have not encountered serious complications in any of our patients except for transient oxygen desaturation and increased secretion. We believe that, sedation without intubation can be used in pediatric patients who undergo repeated RT sessions.*

OP - II 7

REPEATED SEDATION IN PEDIATRIC PATIENTS UNDERGOING RADIOTHERAPY

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Objective: *Stress and anxiety associated with surgery and anesthesia have importance particularly in pediatric population. The aim of the present study was to evaluate the relationship between pre-operative parental anxiety and post-operative delirium developing in pediatric patients undergoing surgery.*

Method: *A total of 30 patients undergoing elective surgery, with ASA I-II and 3 to 7 years of age were included in the study after obtaining approval from the local ethics committee along with verbal and written consent of the parents. While the patients were premedicated, a questionnaire was administered to one of the parents by an anesthesiologist. Anesthesia was induced with sevoflurane via face mask, and then the patients were administered with muscle relaxants, and endotracheal intubation was performed. For post-operative analgesia, we administered IV 15 mg/kg acetaminophen 30-45 minutes prior the end of the operation. After extubation, the patients were transferred to the recovery room, and modified Aldrete scoring scale, Watcha behavior scale, pediatric anesthesia early delirium scale, and VAS according to facial expression were evaluated.*

Results: *The parents with a higher anxiety score had more concerns about surgery, anesthesia, and length of hospital stay after the surgery, but the level of anxiety was lower for post-operative therapy and the duration of preoperative fasting. There was no association between parental anxiety and gender. The Watcha behavior score was higher in girls. Requesting information from the doctor was inversely correlated with the education level.*

Conclusion: *There are numerous studies in the literature evaluating parental anxiety and child anxiety. In this pilot study, descriptive data and family characteristics did not significantly affect early delirium scores and the severity of pain in the children. We believe that larger sized studies are required for more reliable and significant results.*

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OP - II 8

MATERNAL NEAR-MISS –A CASE REPORT ON SUCCESSFUL MANAGEMENT OF POSTPARTUM HEMORRHAGE DUE TO ATONY

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Objective: *Maternal near-miss case refers to a woman who nearly dies but survives either by chance or because of receiving good care at the health facility, due to a complication during pregnancy, childbirth or within the postpartum 42 days of termination of pregnancy (1). The most important causes of near-miss maternal morbidity are complications related to obstetric hemorrhages, and hypertensive diseases of pregnancy. In this study we present a case, who reported to the hospital in a condition of hemorrhagic pre shock with a history of postpartum hemorrhage due to atony, which was succesfully treated and discharged home in a hemodynamically stable condition.*

Case report: *40 year old woman with fourth pregnancy was brought to our hospital in an unconscious state, with a history of postpartum hemorrhage due to atony after caesarean operation. The patient was intubated and emergency hysterectomy, bilateral salphingo-oophorectomy and hypogastric artery ligation were performed. Her initial blood investigations revealed Hemoglobin 3 gr/dl and she received totally 4 units of whole blood, 12 units of erytrocyte suspension, 17 units of fresh frozen plasma and 2 units of single donor platelet during the first 24 hours of intraoperative and postoperative period. The patient was considered to have postpartum hemorrhagic shock, massive transfusion and postoperative maternal near miss. She was discharged on 10th postoperative day with no further complications.*

Conclusion: *Maternal mortality has been used traditionally as a measure of quality of health care. Postpartum hemorrhage is still the most common direct cause of maternal mortality in the world. Atonic postpartum severe hemorrhage which may result in maternal death is assessed as maternal near-miss. Mortality rates can be reduced with early diagnosis, accurate and prompt surgical intervention and appropriate replacement therapies in these patients.*

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OP - II 9

PROGNOSTIC VALUE OF NATRIURETIC POLYPEPTIDES IN THE PATIENTS WITH RESPIRATORY FAILURE IN INTENSIVE CARE UNITS

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Objective: *N terminal-proBNP (NT-proBNP) is a B type natriuretic peptide which plays an important role in the blood pressure, the volume homeostasis, determination of the myocardial function, and the prognosis and the mortality of the patients in the intensive care units (ICUs).*

Method: *In our prospective study, 50 patients without respiratory support on their first admission to the ICUs were included (mean age of 70,54 ± 12,91 years).Within the first 24 hours of admission, NT-proBNP and ejection fraction (EF) % and pulmonary artery pressure (PAP) were measured. Patients <18 years and who stayed <24 hours were excluded.*

Patients' age, gender, initial diagnosis of respiratory failure (cardiac / non-cardiac), reason for admission, co-morbid pathologies, infections improved or not, ventilation requirement during follow, vasopressor requirement, whether acute renal failure (ARF) improved or not, and APACHE II scores were recorded. At the end of the 7th and the 28th days, patients were searched for mortality and survival rates.

Results: *The presence of co-morbid pathologies, use of vasopressors, and development of ARF were found to have an effect on the 7 and 28-day mortality; NT-proBNP of the first 24 hour (NT-proBNP^1), NT-proBNP of the 7th day (NT-proBNP^7) and the PAP values were effective prognostic factors in 7 day mortality; NT-proBNP^1, NT-proBNP^7, EF % and PAP values were effective prognostic factors in 28 day mortality. When NT-proBNP^7, PAP, EF % were compared; NT-proBNP^7 value was found as a predictive factor for the 7-day mortality. When NT-proBNP^1, PAP, EF % were compared; NT-proBNP^1 and PAP values were found as predictive factors for the 28-day mortality. After statistical multivariate adjustment, NT-proBNP^1, use of vasopressors, and PAP in orderly were identified as predictive factors for 28-day mortality.*

Conclusion: *As a result; the factors that affect the mortality and the survival of the patients having respiratory failure in ICUs are, high NT-proBNP values and comorbid diseases, use of vasopressors, development of ARF and high PAP values. We arrived at the conclusion that NT-proBNP is a prognostic marker that is easily accessible, reliable and can be easily repeated in intensive care units.*

OP - II 10

COMPARISON OF THE EFFECTS OF TWO DIFFERENT PROPOFOL SOLUTIONS ON REPRODUCTION RATE, TIME AND TYPE OF MICROORGANISMS

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Objective: *We aimed to compare the reproduction rate of different microorganisms in experimental medium under the effect of two agents, propofol and propofol lipuro which are widely used for anesthetic management.*

Method: *Metisilin resistant Staphylococcus aureus (MRSA), Metisilin sensitive Staphylococcus aureus (MSSA), Staphylococcus epidermidis, Escherichia coli, Klebsiella pneumonia, Pseudomonas aeruginosa, Serratia marcescens were chosen because they were shown as the most frequently isolated anesthesia based infection factors in former studies and they represent different groups. The microorganisms were incubated in 5% sheep blood growth medium for 24 hours at 36 C. At the end of the incubation, the plagues were evaluated for one type (pure reproduction). Then microorganism suspensions were prepared at 10^4 CFU/ml dilutions. The microorganisms were implanting in three different medium:*

Group 1-Sterile serum physiologic (control group)

Group 2-Propofol lipuro

Group 3-Propofol

After addition of microorganisms, implanting process was done. Suspensions were preserved at 20 C. Implanting processes were repeated at 4^{th} -8^{th} -24^{th} -48^{th} hours. After incubation of implanted sheep blood growth medium at 36 C for 24 hours, reproduction amount was quantitatively evaluated.

Results: *There were statistically significant differences based on CFU values between times (p=0.0001). There were also differences in CFU values between times in groups.*

When the groups were compared according to their CFU values, there were significant difference between group1 and group 2 and between group 1 and group 3 (p =0.020 and p=0.002), but no significant difference was observed between group 2 and group 3 (p=0.259).

Comparison of CFU values according to time and colonization; 4^{th} and 8^{th} hour values were not statistically significant (p=0.428) but at other measurement times, there were significant differences in respect to beginning values.

Conclusion: *All the microorganisms were similarly reproductive in mediums which included propofol lipuro or propofol. According to our findings propofol and propofol lipuro act as suitable growth mediums. For this reason, we suggest aseptic methods and usage as recommended in the literature while applying propofol and propofol lipuro to patients.*

OP - II **11**

TRACHEAL STENOSIS AFTER PERCUTANEOUS DILATATIONAL TRACHEOSTOMY

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Objective: *Percutaneous dilatational tracheostomy (PDT) is a common, safe and cost-effective procedure which can be performed at bedside in intensive care unit (ICU) with lower complication rates. Although the early complications related to PDT have been well described and compared with surgical tracheostomy, there is less information about late complications. Here we report a case of tracheal stenosis developed after PDT.*

Case: *Thirty-five years old female patient was admitted to ICU with diagnosis of sepsis. A PDT was performed on the 22nd day of ICU stay and she was decannulated before discharge to ward after follow-up for 57 days in ICU. She developed dyspnea 10 days after discharge to the ward and was admitted again to ICU. At admission, she had fever, tachycardia and bilateral rales, and arterial blood gas analysis was pH:7.34, pCO_2:41mmHg, PO_2:55mmHg, HCO_3:21, BE=-3, SpO_2 %85, and WBC count was 24400/μL. Piperacillin-Tazobactam and clarithromycin were the antibiotherapy. The day after admission, dyspnea was progressed, suprasternal and supraclavicular retractions were remarkable and she was consulted to Ear-Nose-Throat clinic. Physical examination revealed no supraglottic obstructive pathology. As severe dyspnea continued, surgical tracheostomy was planned under general anesthesia. After the induction of anesthesia, even an endotracheal tube of number 4.0 could not be placed in the trachea. A three dimensional computed tomography of nasopharynx, oropharynx, larynx and trachea revealed stenosis and a web just above tracheal cannula compared to proximal and distal parts of trachea. A tracheal resection and reconstruction was considered risky because of a second tracheostomy in Thoracic Surgery consultation. A progressive closure of tracheostomy using a bored silver cannula was suggested by Ear-Nose-Throat clinic but it was unsuccessful. Laser excision of the stenosis was also unsuccessful. She is still tracheostomized.*

Conclusion: *Tracheal stenosis is the most common late complication of PDT and it usually occurs at the subglottic region. Tracheal ring fracture has been noted during PDT techniques and protrution of the fractured part into the tracheal lumen is characteristic and induces tracheal stenosis. As a conclusion, in order to reduce tracheal stenosis, pretracheal blunt dissection to identify tracheal rings and bronchoscopic guidance is especially recommended during PDT.*

OP - II **12**

OUR EXPERIENCE WITH SPINAL ANESTHESIA IN 143 PEDIATRIC PATIENTS

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Objective: *Spinal anesthesia is an alternative to general anesthesia especially at adolescent age not only for high risk patients but also for the other patients who have general surgical, urological and orthopedic surgery. In clinical practice, it is not used as widely as it is used in adults.*

Methods: *The data of 143 children aged between 7-14 years who had been operated with spinal anesthesia in Ağrı State Hospital were evaluated retrospectively. The demographic characteristics, type of operation, length of surgery, time to regression of motor block and complications were recorded.*

Results: *Fourty seven of the patients were girls, 96 of the patients were boys and the mean age of the patients was 10.6 ±1.9 years. Ninety eight percent of patients had succesful block at the first attempt. Adequate sedation level had been achieved with midazolam at 88.8 % of patients, intermittent boluses of propofol for sedation was needed for 16 patients. Mean length of surgery was 45.7 ±5.2 min, mean length of motor block was 62±12.1 min. The main important complication that was observed was high spinal block in which cardiovascular stability was maintained. It was observed in 2 patients aged 8 and 10 years old. Drop foot occured in a 9 year-old patient but treated with medical and physical theraphy. Cardiovascular collapse, total spinal block, intravascular injection or other severe were not observed in our patients. The most frequent indication for spinal anesthesia in our patients was emergency laparatomy for acute abdominal pain (102 patients).*

Conclusion: *As it is easily performed, has fast onset of action and severe hypotension, bradycardia and pulmonary complications are rare, we preferred spinal anesthesia especially for emergency surgical procedures. Our complication rate is compatible with the previous reports (1,2).*

Especially for emergency operations, spinal anesthesia is a preferable technique compared to general anesthesia in children. Further investigations and reports about complications and affirmative results are needed for safe and efficient performance.

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OP - II 13

FOOT-DROP AFTER SPINAL ANAESTHESIA IN PEDIATRIC PATIENT: A CASE REPORT

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Introduction: *While the reports about complications of spinal anesthesia are rare, there are many reports about safety and effectivity of spinal anesthesia in children. In this case report, we discussed the management in a child who had appendectomy under spinal anesthesia and developed weakness on the left leg at the postoperative follow up.*

Case Report: *A 9 year old, 20 kg and 126 cm girl had been planned to have emergency appendectomy. At preoperative evaluation, she did not have any known medical problems. Spinal anesthesia was performed in sitting position between L4-L5 interspace with 26G atraumatic pediatric spinal needle (Atraucan, 50 mm BraunMelsungen AG, Germany). Free flow of cerebrospinal fluid was observed at the first attempt and 0,2 mg.kg^{-1} hyperbaric bupivacaine was administered to the subarachnoid space. The block level was T8 and the operation was non-problematic. On the 6th hour postoperatively, the patient had complaint about weakness at left ankle. In neurologic examination, there was 1/5 weakness at dorsal flexion, 1/5 weakness at ever flexion and 3/5 weakness at plantar flexion on left ankle; 1/5weakness at dorsal flexion and 3/5 weakness at plantar flexion on left toe. Vitamine B and gabapentine 25 mg/kg/day was given as treatment. After treatment of 20 sessions, at control evaluation, walking of the patient recovered. The patient was discharged from the hospital with an unsupported, independent, functional state.*

Discussion: *Spinal anaesthesia complications are very rarely reported in the literature. Llewellyn et al, reported that there were severe radiculopathy/neuropathy in five cases but they had been recovered after 4 to 10 months medical treatment(1). Apillioğulları et al, reported the usage of hyperbaric bupivacaine either 0.2 mgkg^{-1} or 0.4 mgkg^{-1} in their study (2).*

Conclusion: *As reported in our case, neurologic damage can occur without paresthesia during lumbar puncture or pain during injection. It must be kept in mind that these symptoms are frequently transient. A full neurological examination before the operation will be helpful in differential diagnosis of possible complications.*

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OP - II 14

FREQUENT ANESTHESIA IN CHILDREN WITH STURGE-WEBER SYNDROME FOR EYE EXAMINATION

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Introduction: *Sturge -Weber syndrome is a rare central nervous system disease involving skin, brain and eye lesions. This syndrome causes congenital hamartomatous malformations that effect eyes, skin and central nervous system. This syndrome characteristically consists of "port wine" hemangiomas on face and vascular lesions in brain on the same side with the port wine hemangioma. Hemi-cerebral atrophy, convulsion, mental-motor retardation may be seen after ischemias caused by the vascular lesions. Congenital glaucoma, retinal detachment, retinal vascular lesions, choroid hemangiomas, septal defects, valvular stenosis, transposition of great arteries are some other problems seen with the syndrome. Vascular anjiomas found in the oral cavity and airways may rupture, bleed and cause difficulty in ventilation, laryngoscopy and intubation.*

Cases: *Three male patients aged 12 (GK, anesthesia n=8 times), 6 (BO, n=3) and 6.5 (SB, n=2) years had been followed for congenital glaucoma. All patients had "port wine" stain on their faces. Patients other than GK who had mental motor retardation, had no chronic systemic diseases except the syndrome. GK had epileptic seizure under anti-epileptic treatment and operated for intracranial lesion. SB had been taking beta-blocker agent.*

All patients were ventilated with 80% O_2 and 6-8% sevoflurane. Intravenous line was introduced after sevoflurane inhalation and its concentration decreased gradually. Patients were ventilated with 2% sevoflurane and 40% O_2 during glaucoma examination. GK had developed peroperative bradycardia in 6th examination and was treated with 0.5 mg atropine. Patients emerged postoperatively without any problem, and were sent to service after being watched in the emergence room for pproximately 20 min.

Conclusion: *Anomalies associated with syndrome should be evaluated carefully for these patients. Although anesthesia was tolerated well by the patients; angiomas in oral cavity, larynx and trachea might cause difficult intubation by causing bleeding into the cavity. Endotracheal intubation should be performed with soft, unguided and lubricated tubes. Careful tracheo-bronchial aspiration should be performed. Agents and events (coughing, gag) causing increase in intraocular and intracranial pressure should be avoided. Anesthesia management should be planned in a way that secures the airway, prevents hemangioma lesions and an increase in intraocular and intracranial pressure.*

OP - III 1

NEUROBRUCELLOSIS: A CASE REPORT

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Introduction: *Central nervous system involvement is seen in 2-3 % of brucellosis cases. Clinical findings of neurobrucellosis are variable. Menengitis, ensefalitis, epidural abcess, granuloma, demyelinization and meningovascular syndromes can be seen. Here we report a case of neurobrucellosis complicated with subarachnoid hemorrhage.*

Case: *A fourty-nine years old male patient was referred to the neurology clinic with complaints of headache, dizziness, concentration difficulty, joint pain, sweating and fever 6 months ago. Cranial computed tomography and magnetic resonance imaging (MRI) were assessed as normal. Agglutination was positive in cerebrospinal fluid (CSF) and in blood cultures, protein level in CSF was 96 mg/L. The diagnosis was "Brucellosis" and treatment was started. He was discharged with recommendation of policlinic controls. Two months ago, he applied to the emergency department with headache, nausea and vomiting. His Glasgow Coma Scale (GCS) was 13, cranial computed tomography showed hydrocephalus of the 3rd and 4th ventricles, hyperdensity consisted with subarachnoid hemorrhage in both occipital horns of lateral ventricles and the 4th ventricle. An intracranial shunt was placed immediately for external drainage. He was admitted to intensive care unit with GCS 5 and was mechanically ventilated. An aneurysm was excluded with cerebral angiography performed the day after surgery. A week later, a permanent intracranial shunt was placed and cranial MRI revealed subarachnoid hemorrhage, diffusion limitations in anterior part of corpus callosum and contrast signal which was considered as a sign for infection. Also cervical and thoracal MRI showed contrast signal along with spinal cord which was inconsistent with vascular structure and this was also considered as a sign for infection. The patient is still being followed-up in our intensive care unit.*

Conclusion: *Subacute/chronic menengitis is common in neurobrucellosis but different neurological findings can also occur. Since classical triad (fever, neck stiffness, altered consciousness) of menengitis secondary to brucellosis is rarely seen, brucellosis should be considered among differential diagnosis in patients with neurological signs in endemic areas. Nonetheless, as in our case subarachnoid hemorrhage accompanying neurobrucellosis is a rare complication.*

OP - III 2

PERCUTANEOUS TRACHEOSTOMY: A RETROSPECTIVE ANALYSIS OF 62 PATIENTS.

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Objective: *In the ICU, the most common indication for tracheostomy is a need for prolonged mechanical ventilation. This need may arise from pneumonia refractory to treatment, severe chronic obstructive pulmonary disease, acute respiratory distress syndrome, severe brain injury, or multiple organ system dysfunctions. Since Ciaglia et al. introduced the percutaneous dilatational tracheotomy (PDT) in 1985, percutaneous tracheotomy (PCT) has become increasingly popular and has gained widespread acceptance in many ICU. In 1990, Griggs and colleagues reported the guide-wire dilating forceps (GWDF) method. Below we present our two –years- experience in tracheostomy with GWDF in our intensive care unit.*

Method: *In our experience 62 patients who had undergone percutaneous tracheostomy by Griggs method in the intensive care unit between April 2011 - February 2013, were analyzed retrospectively. Demographic data and diagnoses of patients, and percutaneous tracheostomy complications were evaluated.*

Results: *The average age of 62 patients was 58.3 (Minimum 16 - Maximum 86) .41 patients (66.1%) were male, 21 patients (33.9%) were female. Patient's diagnosis was 25 COPD, 6 trauma, 10 ARDS, 11 hypoxic encephalopathy and 10 due to other diseases. During the percutaneous tracheostomy on 19 (30.8%) patients minimal bleeding occurred without any need for an intervention, wound haemorrhage occurred in 3 (4.8%) patients and pneumothorax was developed in two patients (3.2%). They were treated by a tube inserted into the pleural space. No mortality complications were developed.*

Conclusion: *Percutaneous tracheostomy has already replaced the surgical route in several intensive care units and it is indeed the procedure of choice in the majority of cases.*

We believe that percutaneous tracheostomy with guide wire dilating forceps (GWDF) method, in experienced hands, is safe, easy and quick, and there is no need to move the patient to the operating room.

OP - III 3

CARBON MONOXIDE INTOXICATION: CASE REPORT

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Introduction: *Poisoning with carbon monoxide (CO), which is a colorless, odorless and non-irritating gas, is a common cause of mortality and morbidity. A wide spectrum of clinical symptoms, ranging from headache to coma, can be seen after exposure to CO. Early diagnosis and hyperbaric oxygen therapy are important points of treatment. In this report, we discussed the management of a case of CO intoxication admitted to intensive care unit (ICU) with Glasgow Coma Scale 3.*

Case: *Twenty-six years old male patient was found unconscious at home, in a room heated with stove and suspected of CO poisoning. He was admitted to ICU, he was unconscious, had tachycardia and regular respiration. Cerebral hemorrhage was excluded by cerebral computed tomography. Treatment protocole including, acetylsalisilic acid 300 mg, metoprolol 100 mg, enoxaparine 6000 IU and nasal oxygen was ordered. A cerebral magnetic resonance imaging (MRI) was performed on the second day of ICU stay and revealed diffusion limitations in frontoparietal regions and centrum semiovale. Hyperbaric oxygen therapy was applied for 7 times in a week. His level of consciousness improved daily and he was mobilized with a wheelchair on the 9th day of ICU stay. A control MRI was performed on the 17th day and showed regression in areas with diffusion limitation. He was conscious, oriented, cooperated on the 19th day and was discharged home.*

Conclusion: *Coma, loss of consciousness, alterations in conscious state, regardless of CO levels, are the primary indications of hyperbaric oxygen therapy. These groups of patients benefit most from hyperbaric oxygen therapy if applied in the first 6 hours. Long-term neurological sequela is reported 18-55 %. As hyperbaric oxygen therapy can be applied easily with low complications, it is recommended in these patients despite no clear effect on long-term neurological sequela has been shown.*

OP - III 4

A RETROSPECTIVE ANALYSIS OF PATIENTS WITH COPD EXACERBATION IN INTENSIVE CARE UNIT

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Objective: *It is important to choose the best treatment for patients with chronic obstructive pulmonary disease (COPD) because of complications due to invasive mechanical ventilation. Our aim is to compare the effect of noninvasive mechanical ventilation (NIMV) and invasive mechanical ventilation on patients with COPD exacerbation.*

Method: *The case records of 149 patients with acute respiratory failure due to acute exacerbations of COPD in ICU between October 2010-February 2012 were retrospectively reviewed. Age, gender, hospital stays, type of treatment, mortality values were obtained from the records. Diagnosis was confirmed by using Thoracic Society's diagnosis and treatment criteria.*

Results: *The average pH values of the intubated patients in admission were 7,14±0,8, while those of patients treated with NIMV were 7,21±04. Before discharged from ICU, Ph values of the patients, intubated and treated with NIVM were 7,34±0,7 and 7,39±0,7, respectively. In the first follow-up, p-CO_2 values of patients intubated were 97 ± 33, while those of patients treated with NIMV were 81 ± 14. In admission, PO_2/FiO_2 values were calculated. In both the intubated and NIVM patients, the median PO_2/FiO_2 values were 106±35 and 159 ± 34, and before they were discharged from ICU, the median PO_2/FiO_2 values were calculated as 156±55 and 236±43, respectively. One hundred and twelve patients were smokers.*

Average duration of smoking was found to be 39 ± 8 years. 53 patients died (35%), 36 patients were male. There was no significant difference between survival and gender.

Conclusions: *It may be concluded that; NIMV can be the initial treatment for patients having the acceptance criteria for NIMV, since it is a tolerable and safe way to reduce costs and decrease morbidity in patients with acute exacerbations of COPD.*

OP - III 5

COMPARISON OF DIFFERENT MORTALITY SCORES IN MECHANICALLY VENTILATED PATIENTS

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Objective: *The most well-known mortality scores are PRISM and PIM scores. A good scoring system should be reliable and applicable in different patient groups and units. Ventilation parameters are not included in PRISM III score while taking part in PIM2 score. The aim of this study is applying standardized mortality scores in mechanically ventilated patients and determining whether they are appropriate to predict the risk of mortality.*

Material and Methods: PRISM III-24 and PIM2 scores were calculated in mechanically ventilated 150 patients between April 2011 to April 2013.

Results: *The area under the ROC curve was 0.66 and p-value calculated by goodness-of-fit test was 0.002 for PRISM III-24 score. The discrimination and calibration of score was assessed as poor. Standardized mortality ratio (SMR) was 0.85 at cut-off point (72.5) determined by 51.2 % sensitivity and 75.2 % specificity. SMR values showed that observed mortality was less than expected mortality. PRISM III-24 score missed a significant portion of patients in observed mortality.*

The area under the ROC curve was 0.52,and p-value calculated by goodness-of-fit test was 0.68 for PIM2 score. A standart ROC curve couldn't be obtained for PIM2 score. SMR could not be evaluated since there was no ideal cut-off point. The score was unable to discriminate survivors and non-survivors, the observed and expected mortality was not compatible.

Oxygenation index (OI) was calculated at 0, 12, 24, 72 hours of ventilation to asses oxygenation. OI-12 and OI-72 were found to be higher in non-survivors than survivors. In addition, high mortality rate in patients who needed HFO was associated to higher value of OI-72.

Conclusion: *PRISM III-24 and PIM2 scores failed to predict mortality risk in ventilated patients. Standard scoring systems should be reconsidered in this respect. OI can be used to predict the degree of respiratory failure and mortality risk. Therefore, future studies can be done with larger groups of ventilated patients to asses whether OI estimates mortality risk independently. Thus OI may be included in standart mortality and organ failure scoring systems and validity can be evaluated.*

OP - III 6

FULMINANT HEPATIC FAILURE AFTER EXPOSURE TO SEVOFLURANE

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Introduction: *Sevoflurane is a halogenated volatile anesthetic like halothane, enflurane, isoflurane and desflurane. They are metabolized to produce trifluoroacetylate (TFA) which is able to bind with amino groups of proteins. TFA-liver proteins can act as haptens and take a role in immune-mediated hepatotoxicity. However sevoflurane doesn't form TFA-liver proteins Theoretically, patients sensitized to either halothane, isoflurane or desflurane could be safely anesthetized with sevoflurane. However, there are reports about postoperative hepatic injury due to sevoflurane in children and elders. Here we report a case of acute liver failure in a patient who needed liver transplantation.*

Case Report: *A 14-month-old girl weighing 9 kg was operated for isolated cleft palate under general anesthesia using sevoflurane and rocuronium. She was discharged three days after surgery with uneventful course. Nearly eight hours later discharge she was admitted to our emergency service because of vomiting, fatigue and jaundice. Mild icteric appearance was present and liver was palpable approximately 2 cm, subcostally in midclavicular region. In her laboratory examination there was significant hypertransaminasemia with alanine aminotransferase (ALT) 6347 IU/ml and aspartate aminotransferase (AST) 6482 IU ml^{-1} and coagulopathy with international normalized ratio (INR) 9,53, although her pre-operative evaluation was in normal range. The patient was transferred to intensive care unit and N-acetyl cysteine infusion (100 mg/kg/day) was started. Eight hours after admission ALT and AST levels increased to 11396 IU/ml and 14000 IU/ml. As a result of the exclusion of other possible causes of liver failure, it was thought to be related to anesthesia. The patient was transferred to a liver transplantation center where she underwent living related liver transplantation with an uneventful course.*

Conclusion: *Sevoflurane progressively replaces halothane in pediatric anesthesia in most developed countries. TFA is thought to be involved in the etiology of immune-mediated hepatitis developed during postoperative course. Unlike the other anesthetics, sevoflurane isn't metabolized to TFA. In our patient we considered sevoflurane anesthesia as the reason of ALF, because she was previously healthy and had second anesthesia in four months. Also other conditions leading to hepatic failure was excluded.*

OP - III 7

COCKAYNE SYNDROME; MANAGEMENT OF ANESTHESIA AND INTENSIVE CARE

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Introduction: *'Cockayne Syndrome' (CS) is a rare autosomal recessive multisystem disorder characterized by microcephaly, growth failure, cutaneous photosensitivity, dental anomalies, pigmentary retinopathy, cataracts and enophtalmia. Fatality occurs in early adolescence, the general reasons for death from CS are respiratory infections, pneumonia and renal failure. We aimed to report a 13-year-old girl with CS who was consulted for implantation of peritoneal dialysis catheter under general anesthesia and recovery in intensive care unit (ICU) postoperatively.*

Case: *A 13-year-old girl with CS who had several characteristic features including growth failure, weighing only 16 kg, malnutrition, cataracts, bird-like face, microcephaly, kyphosis, limb ataxia, tooth malposition, anhidrosis, thin and dry hair was taken to the operation room without premedication for implantation of peritoneal dialysis catheter. We prepared devices such as different size blades and Miller blade, laryngeal mask, gum-elastic bougie for management of difficult airway. Mask ventilation was not difficult and the patient was intubated successfully in first attempt. Anesthesia was maintained and extubated without any complications. One day later, we admitted the patient with respiratory distress to ICU. The analysis of arterial blood gas showed metabolic acidosis and hypoxemia (PH: 7.28, PCO_2: 27.3, PO_2: 57.7 HCO_3: 14.8, BE: -10.8). She was intubated and mechanically ventilated with pressure support mode. Her biochemical parameters were normal such as electrolyte, urea, creatinine. Uric acid level was elevated. She had 38.5° fever with leucocytosis (WBC: 21.6 10^3 / u). Antibiotherapy with ceftriakson and amikacine was performed. She was oliguric and hypotensive. Fluid resuscitation with 0.5 mcg/kg/m dopamine infusion started. Despite all these supportive therapies, resistant cardiopulmonary arrest occurred with no response.*

Conclusion: *Cockayne Syndrome is a progressive multisystem disorder characterized by a specific cellular defect in transcription-coupled repair related DNA transcription. Gastrointestinal, urinary and respiratory systems were affected in this case. Well-disciplined approach should be followed in multisystem disorders such as Cockayne Syndrome.*

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OP - III 8

EVALUATION OF NON-INVASIVE HB MONITORING DURING RADICAL PROSTATECTOMY SURGERY

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Objective: *Prostate cancer is the most frequently diagnosed cancer in men, and it is also the second most common cancer causing deaths after lung cancer. Radical prostatectomy (RP) operation is the ideal treatment method for clinically local stage prostate cancer with life expectancy. The most common complication of RP surgery is massive intraoperative bleeding that may require blood transfusion. During surgery because urine washing solution and blood are suctioned to the same canister, it is difficult to assess correct amount of blood loss. Beside conventional techniques; recently developed non-invasive monitoring methods are also available for perioperative bleeding control.*

The aim of the study was to evaluate the reliability of non-invasive monitoring technique.

Methods: *After approval was obtained from the University of Kocaeli, Turkey, 10 patients, 20-65 years of age, ASA I-III, undergoing elective radical prostatectomy surgery were included in the study. After premedication; patients were taken to the operating room monitored with ASA standard monitors plus invasive arterial monitoring and/or central venous monitoring as part of their standard care. For noninvasive hemoglobin monitoring, Rainbow adult ReSposable™ sensors (rev E) were attached to the ring or middle fingertip of the subject and then connected to a Radical-7 Pulse CO-Oximeter (Masimo Corporation, Irvine, CA). The sensors were covered with black plastic shields to prevent optical interference. Before the start of the surgery, blood samples were obtained and analyzed for total hemoglobin (tHb) by both central laboratory and blood gas analyzer (Radiometer, Copenhagen Denmark) and at the same time Hb value at non-invasive Hb monitoring were recorded. The same process was repeated when the most severe bleeding occurred in the venous plexus during dissection and at the end of surgery. Hb values taken at three different times (preoperative, intraoperative, postoperative) and by three different methods were analyzed to assess Hb monitoring accuracy compared to laboratory and blood gas analyzer results. Kruskal-Wallis test was used for statistical analysis.*

Results: *Non-invasive Hb monitor values were similar and in good agreement with laboratory and blood gas analyzer values at intraoperative and postoperative time ($P<0.05$). There was difference in Hb values taken at the beginning of the operation (Table 1, Graph 1).*

Tablo1. Hemoglobin concentration values using Non-invasive monitor compared with laboratory and blood gas analyzer (n=10), (Mean±SD).

	Noninvasive (g/dl)	**Laboratory** (g/dl)	**Blood Gas** (g/dl)	***P***
Preop. Hb	12±0,8	13±1,3	13,6±1,2*	<0.05
Intraop. Hb	10,7±1,2	11±1,1	11,1±1,0	>0.05
Postop. Hb	10,6±1,2	10,5±0,9	11,1±0,9	>0.05

Preop.: Preoperative, Intraop: Intraoperative Postop: Postoperative, Hb:Haemoglobin
*There was a significant difference between the preoperative values of different monitoring systems.

Conlusions: *In conclusion, except the preoperative values there was a good correlation with continuous non-invasive hemoglobin measurement and laboratory and blood gas analyzer Hb values during critical moments of surgery. We believe that more reliable results could be obtained from larger series of patients.*

OP - III **9**

PULMONARY EMBOLISM IN A YOUNG ADULT REQUIRING VENA CAVA FILTER

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Introduction: *The most common cause of thromboembolism (80-90%) is deep vein thrombosis of lower extremities. Age of the patient, previous thromboembolism and co-morbidities are important in etiology and scoring the risk of pulmonary embolism. In the present case we discuss the management of wide-spread thrombosis and pulmonary embolism developed in a young female with no co-morbidity.*

Case: *A nineteen years old, non-smoker female, referred to hospital with dyspnea and tachypnea. She received heparin with supportive therapies. D-dimer level was found 1327 ng/ml and venous doppler ultrasound of bilateral lower extremities revealed thrombosis and cessation of flow in right superficial and deep femoral veins and external iliac vein. No hemodynamic agent was needed. Heparin treatment was changed to warfarin, but INR value became too high (7,06-7,67), and anemia was remarkable (Hb: 6.3 g dl^{-1}). She was admitted to intensive care unit for an advanced intervention to her thrombosis. She was conscious, tachypneic but had no symptom of heart failure. In venous blood gas analysis pH:7,48, PaO_2:35, PCO_2:27, HCO_3:21 and BE:-3 were found. Warfarin was stopped, INR was followed and enoxaparin 0.6 ml twice a day was started. In echocardiography no thrombus was seen and cardiac functions seemed normal. Pulmonary angiography revealed findings of thromboemboli at distal part of right inferior lobe, pulmonary infarct in the right inferior lobe and total occlusion of inferior pulmonary vein'.The patient received calcium channel blocker, anticoagulant, intermittant oxygen therapy and was followed for 7 days. Before referral to hematology, she was consulted to cardiology for placement of a vena cava filter' to prevent recurrence of new thromboemboli. D-dimer and INR levels were normal on the 7th day of ICU stay and she was discharged to cardiology ward. The day after discharge a vena cava filter was placed without any complication (Figure1).*

Conclusion: *In pulmonary embolism cases, if hemodynamic parameters are stable with anticoagulation and supportive therapy, thrombolytic therapy is usually not preferred. Vena cava filter plays like a barier for thrombus to reach lungs in cases under risk of recurrence of thromboembolism. As in our case, placement of vena cava filter is an appropriate approach for preventive therapy in deep vein thrombosis cases.*

OP - III **10**

CARDIAC ARREST AFTER LAPAROSCOPIC MYOMECTOMY OPERATION

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Introduction: *Arrythmia, electrical storm and cardiac arrest during laparoscopy are coincided in literature because of vagal stimulation by rapid insuflation of carbondioxide or intrauterine drug injections. A patient who survived cardiac arrest evolved out of atropine injection for bradycardia and intrauterine high-concentrated adrenaline injection for hemorrhage control is presented in this case.*

Case Report: *A 37 year-old, 71 kg body weight, ASA-2 status woman was admitted gynecologia department because of menometrorrhagia. Laparoscopic myomectomy was planned under general anesthesia. She had had thyroidectomy and two C/S operations under general anesthesia without haemodynamic complications before. Hb:10.23 gr.dL^{-1}, Htc:32 %, platelet:287.000 u.L^{-1}, glucose: 99 mg.dL^{-1}, sodium: 138 mEq.L^{-1}, potasium:4.53 mEq.L^{-1}, albumin: 3.3 gr.dL^{-1}, creatine:0.51 mgr.dL^{-1}, alanine transaminase:14U.mL-1, aspartate transaminase:28U.mL^{-1}, BUN:13 mgr.dL^{-1} were measured preoperatively. Non invasive blood pressures were maintained between 120/60-100/55mmHg, heart rate:60-62 min^{-1}, sPO_2:98-100 %, $EtCO_2$:29-34 mmHg during the procedure. After the induction with propofol, rocuronium and fentanyl intravenously, anesthesia was maintained using sevoflurane, fentanyl and oxygen 50% in air. When 3L carbondioxide was insuflated through the trocar, bradycardia and hypotension were observed. 0.5 mg atropine was injected intravenously soon after the bradycardia. After releasing intraabdominal adhesions 1 mg adrenaline in 20ml serum physiologic was injected to the myometrium in order to decrease hemorrhagia. Approximately 2 min. After the adrenaline injection Vt and VF and then asystole occured suddenly. After the successful CPR for three minutes, the patient was extubated using 70 mg sugammadex and was then transferred to the ICU. She was fully awake, responsive to stimuli, sPO_2: 87%, glaskow coma scale 15 and breathing spontaneously. Ejection fraction 45%, pulmoner artery presure 16 mmHg and hypokinetic basal segment were observed with echocardiographic investigation. Cardiac enzymes were increased (CK:78-322, CK-MB:53-370, Troponin:0.01-1.81 levels were detected on 1^{st} and 24^{th} hours postoperatively). Her medication was acetylsalicylic acid 300mg (1x1) orally, Clexane 0.8 IU (1x1) subcutenously, furasemid 20 mg (1x2), atorvastatin 40mg, plavix (1x1) orally. She was transferred to ward at the 24^{th} hours of ICU.*

Conclusion: *Insuflation rate and carefully cardiac stimulant and vasoconstrictive agents usage should be essential in our anesthesia practice during laparoscopic surgery.*

OP - III **11**

USAGE OF SUGAMMADEX IN AN INFANT WITH CHARGE SYNDROME

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The term Charge was created to describe a number of birth defects in 1981. The letters stand for Coloboma of the eyes, Heart defects, Atresia of choana, Retardation of growth, Genital hypoplasia, and/or Ear abnormailties. In this case, the problems confronted maintaining the airway and anesthetic approaches in a child with Charge syndrome are discussed.

***Case:** A 2,5 months old and 3 kg. weighed girl with CHARGE syndrome was scheduled for an operation for choanal atresia. Dysmorphic face appearance, trigonocephalia, ambigious genitalia and genu varum were detected in her preoperative physical examination. She was dyspneic, O_2 saturation was 75-80%, on the auscultation lung sounds were natural but there was a 2/6 systolic ejection murmur, due to secundum atrial septal defect. Her other findings did not show any abnormalities so she was accepted as ASA II and transferred to operating room.*

After monitoring the patient,10 ml/kg h^{-1} 5% dekstroz-2% NaCl mixed solution was started for infusion. Considering difficult intubation, a selection of pediatric difficult airway equipment was prepared and she was started to be pre-oxygenated with 100% O_2. The mask ventilation was maintained by two hands hardly. After being sure of the maintenance of the airway, anesthesia was induced with propofol, rocuronium and fentanyl. In the first intubation attempt the patient was estimated as Cormack Lehane Grade IV. The first attempt was unsuccessful. Mask ventilation was becoming more difficult with an extended period of mask ventilation expected.

After three attempts made by experienced 3 anesthesiologists, intubation was hardly made, at the 15^{th} minute of induction by a No.3 intubation tube. Surgical procedure lasted for 50 minutes. As the neuromuscular block persisted, a discussion took place about the potential role of sugammadex. It was decided to administer 2 $mgkg^{-1}$ in the first instance. The block successfully reversed on the 30th min. of administration. Mask ventilation was maintained by 100% O_2, 3L/min. After being sure of full recovery she was transferred to the clinic where she was treated and followed.

***Conclusion:** In the extubation stage of the maintenance of difficult airway, "awake extubation" is recommended making sure that all the protective airway reflexes are returned. At this point using sugammadex in adults is inarguable. While in the babies elder than 2 years, the recommended dose of sugammadex is 2mg kg^{-1}, it is lower in younger infants and some featured patient groups.*

We conclude that; in the infants with a possibility of difficult airway management, sugammadex could be successfully and safely used to antagonize rocuronium.

OP - III **12**

POSTOPERATIVE COMPLICATIONS IN A LYNCH SYNDROME

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***Introduction:** Lynch syndrome is an autosomal dominant condition that has a high risk of colon cancer as well as other cancers including endometrium (secondary most common up to 50 %). Here we report a case of Lynch Syndrome in whom pulmonary embolism and sepsis developed following major surgery for endometrium cancer.*

***Case:** Thirty-nine years old female patient had surgery for rectum cancer 3 years ago and endometrium cancer was diagnosed. She was operated for endometrium cancer and was hypotensive postoperatively. Physical examination and ultrasound of abdomen was normal. Hemoglobin values were 13.4-12.5 g/dl. Blood pressure (BP) was measured 60/30 mmHg, heart rate:130/min, and dopamine infusion was started. Arterial blood gas (ABG) analysis showed hypoxia and hypocarbia, pulmonary embolism was suspected and enoxaparine dose was 0.6 ml twice a day. On the second postoperative day, respiratory sounds were bilaterally decreased and crackles were heard on the right base. BP was 90/60 mmHg under dopamine infusion, heart rate, respiratory rate and SpO_2 were 151/min, 44/min and 88%, respectively. She was admitted to intensive care unit (ICU) with diagnosis of acute renal failure, pulmonary embolism and sepsis. She was mechanically ventilated, receiving inotropes, and hemodiafiltration was started. Laboratory findings were Plt:223000/µL, INR:2.6, aPTT:58sn, Procalcitonin :15.5µg/L, Na:147mmol/L, K:2.9mmol/L, Cl:115mmol/L, Ca:6.6mg/dl, Mg:0.5 mmol/L, Alb:2.2g/dl. ABG analysis showed metabolic acidosis with a lactate level of 7.12 and 5.25 mmol/L. On the second day of admission, her platelet count decreased to 11.000/µL and INR was 3.13. Two units of erythrocyte suspension, two units of fresh frozen plasma and 4 units of platelets were infused. She was hypotensive during follow-up, fluid administration and hemodiafiltration went on and doses of inotropes were increased, but on the second day of ICU stay she had a cardiac arrest and did not respond to cardiopulmonary ressuscitation.*

***Conclusion:** Lynch Syndrome is a type of cancer syndrome. The increased risk for cancers is due to impairment of DNA repair. As these patients underwent major surgery, clinician must be aware of the risk of several complications like sepsis, pulmonary embolism and acute renal failure.*

OP - III **13**

SEPSIS FOLLOWING ABDOMINAL SURGERY

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Introduction: *Mortality and morbidity of sepsis is still high in intensive care unit (ICU). Here we report a severe clinic of a sepsis case secondary to a surgical complication.*

Case: *Thirty-five years old, female patient was admitted to ICU with diagnosis of sepsis developed on the 5th day of laparoscopic ovarian cyst operation. She was concious, tachypneic with blood pressure: 92/59 mmHg, heart rate: 147/min, temperature: 37.5°C and had abdominal discomfort. Arterial blood gas (ABG) analysis was pH:7.47, $PaCO_2$:28mmHg, PaO_2:129mmHg (O_2 6L min^{-1} with face mask), HCO_3:20, BE:-3, Lactate:3.02 mmol/L. She had undergone surgery because of intestinal perforation. After insicion, solid and liquid intestinal content and perforations in rectosigmoid junction and uterus were observed. In ICU, antibiotherapy, fluids and vasopressors were given postoperatively. Urine output was below 0.5 ml kg^{-1} h^{-1}, laboratory findings were found as WBC:2800, BUN:91, Creatinine:1.2, AST:292, ALT:157, PT:21.8, INR:1.98, aPTT:33.3. The patient was mechanically ventilated, and plasmapheresis was applied during 3 days. Laboratory findings were Plt:84-49000, INR:1.97-1.56, AST and ALT: 600-1400 on the 2nd-5th postoperative days. On the 3rd postoperative day, in ABG analysis $PaCO_2$ was 118 mmHg and we suspected of ARDS with signs of chest X-ray (Figure 1) and the ventilation mode was changed to APRV (Airway Pressure Release Ventilation) with parameters of Phigh:20 cmH_2O, Thigh:4 sec, Plow:5 cmH_2O, Tlow:1.5 sec, PSV:15 cmH_2O, FiO_2:60%. $PaCO_2$ was controlled in three days of APRV ventilation. The trachea was extubated on the 19th day of ICU stay. After extubation, $PaCO_2$ was 115mmHg despite noninvasive ventilation, and she was re-entubated on the 20th day and a percutaneuos dilatational tracheostomy was performed on the 22nd day of ICU stay. During follow-up, she was mobilized with a "Walker", orally fed and decannulated on the 55th day and was discharged to the ward 48 hours after decannulation.*

Discussion: *Mortality of ARDS secondary to sepsis was reported as 30-85%. In previous reports it was shown that early use of APRV mode could prevent progression of ARDS, provide alveolar stability and decrease pulmonary edema. In our case APRV mode was found appropriate as requiring less sedative and muscle relaxant and providing effective CO_2 elimination.*

OP - III **14**

BRADYCARDIA DURING TUMOR RESECTION BY TRANSSPHENOIDAL APPROACH: TRIGEMINOCARDIAC REFLEX

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Introduction: *Trigeminocardiac reflex (TCR) is first defined in cerebellopontine tumor surgery in 1999 (1). After stimulation of one of the sensory branches (pathways) -the trigeminal nerve, the signals are transferred to the Trigeminal sensory nuclei via the Gasser ganglion. The afferent pathway –by the reticular formation- anastomose with the efferent ways of the Vagus nerve motor nucleus (2). It is characterized by sudden parasympathetic dysrythmia, sympathetic hypotension, apnea and gastric hypermotility. Its incidence in transsphenoidal surgery is 7.5-18% (1,2).*

In this case report, we aimed to present two TCR cases that we observed during transsphenoidal craniopharyngioma and hyphophysial adenoma surgeries.

Cases: *Both patients recieved 200 mg propofol, 100 mcgr fentanyl and 50 mg rocuronium in induction and maintenance was done with a gas mixture of 50% O_2/air in 2% sevoflurane and 0.1 mcgr/kg/min remifentanyl infusion. Invasive radial artery blood pressure measurement and standart monitorization were done in the patients. Patients were all extubated at the end of the procedure and transferred to the postanesthesia care unit.*

Case 1: Twenty four years old male patient with a body mass index (BMI) 32.62 who was assigned to ASA I risk group underwent transsphenoidal adenoma resection.

On the 90th minute of the operation we observed bradycardia attacks (35-40 beats/min) resolving on withdrawal of the traction. Hemodynamic parameters didn't change. Operation time was 3 hr 10 min. and anesthesia time was 4 hr 15 min.

Case 2: Thirtyfive years old ASA I risk group male patient with a diagnosis of recurrent craniopharyngioma underwent transsphenoidal tumor resection.

We observed bradycardia attacks five times during the operation (30-40 beats/min) without hemodynamic changes. Anethesia time was 3 hr 30 min. and operation time was 2 hr 45 min.

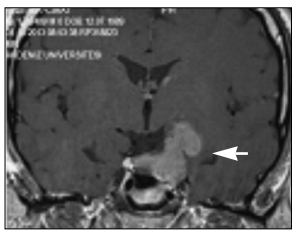

Figure 1: Cranial MR of Case 1

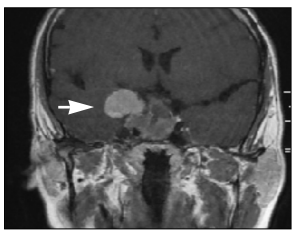

Figure 2: Cranial MR of Case 2

Conclusion: *Trigeminal nerve runs toward the petrous apex and enters the middle fossa in Meckel's cavity (3). In our patients we observed bradycardia attacks during resection in the Meckel's cavity at the medial-inferict or of cavernous sinus. We conclude that continuous hemodynamic monitorization is essential to detect rhythm changes in transsphenoidal procedures. Interested surgeons and all anesthesists should recognize TCR.*

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OP - IV 1

ANESTHESIOLOGICAL APPROACH TO ANGELMAN SYNDROME PATIENT: CASE REPORT

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Introduction: *Angelman Syndrome is a maternally inherited neurogenetical disorder which is characterized by the microdeletion of 15q11-13 zone. The signs and symptoms include developmental delay, mental retardation, speech impairment, epileptic seizures, and frequent laughter/smiling also known as the "Happy Puppet Syndrome". This case will discuss a patient with Angelman Syndrome who was operated for the removal of a foreign body from his nose in line with the literature.*

Case: *A male Angelman Syndrome patient, 24 years old was planned to undergo an operation to remove the foreign body from his nose. Patient's medical history did not include any other disorders. Physical examination showed separated teeth, large tongue but no other maxillar or mandibular anomalies. Preoperative routine results did not show any anomalies. Due to continuous movement of the patient and not being able to establish cooperation, vascular access cannulation was concluded to be difficult, so 3mg/kg ketamine, 0,05 mg/kg midazolam and 0,5 mg atropine were injected intramuscularly. This stopped patient's involuntary movements. Vascular access was cannulated. Deeply penetrated foreign body was removed via endoscope. No complications occurred. Anesthesia level and post-operative recovery duration was normal.*

Discussion: *Angelman Syndrome patients pose many anesthesiological risks. 80% of patients exhibit epileptic seizures, microcephaly, and scoliosis. Sudden cardiac arrest due to vagal hypertonicity, possible difficulty in intubation, and vomiting are the main problems in terms of general anesthesia applications. Involuntary movement of the patient complicates application of regional anesthesia and sedation. In addition, the deletion zone in Angelman Syndrome patients is also related to the synthesis of GABA-A receptors. Therefore, response to anesthesilogical medication is not predictable. Thus, ketamine, which is an antagonist for NMDA receptor was preferred for the patient, who does not have epileptic history. Atropine was also added in order to prevent a possible vagal hypertonicity. No complications occurred.*

In conclusion, we believe the anesthesia procedure applied to our Angelman Syndrome patient is a reasonable approach to non-epileptic subjects with minor surgical procedures.

OP - IV 2

RELATIONSHIP BETWEEN RED CELL DISTRIBUTION WIDTH, ADENOTONSILLAR HYPERTROPHY AND INCIDENCE OF LARYNGOSPASM

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Objective: *Adenotonsillectomy is one of the most common indications in children for management of obstructive sleep apnea syndrome. We aimed to evaluate and describe the relationship between pediatric adenotonsillectomy, adenotonsillectomy related laryngospasm and red cell distribution width (RDW).*

Method: *The medical records of 306 patients that underwent adenotonsillectomy (Group I) with a diagnosis of adenotonsillar hypertrophy between 2010 and 2013 and 347 healthy controls (Group II) were evaluated. White blood cell count , platelet count, hemoglobin levels, mean platelet volume and red cell distribution width of all cases and incidence of laryngospasm, patient characteristics, anesthesia and surgery related data of adenotonsillectomy cases were collected.*

Results: *Red Cell Distribution Width values were 16.1±1.4, 15.8±1.3 in Group I and Group II respectively. It was found that RDW values in group I were significantly higher than control group. (p=0.004). We performed ROC curve analysis to determine a cut off value from RDW values of tonsilloadenoidectomy cases to predict the occurence of laryngospasm. Accordingly, 16.85 was accepted as a cut off point which had given a sensitivity of 87% and specificity of 77%. Twenty three laryngospasm cases (7.5%) were identified and 20 patients had RDW>16.8. All were postoperative and one of them was reentubated. Compared to the patients RDW<16.85 with laryngospasm, there was no difference in age, weight, American Society of Anesthesiologist (ASA) degree, length of surgery.*

Conclusion: *Adenotonsillar hypertrophy caused OSAS is associated with high RDW. In addition, among patients undergoing adenotonsillectomy RDW is an easy and simple predictor of laryngospasm.*

OP - IV 3

ANESTHETIC MANAGEMENT OF AN INFANT WITH RUBENSTEIN-TAYBI SYNDROME: A CASE REPORT

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Introduction: *Rubinstein-Taybi syndrome (RTS) was diagnosed in 1963 by Rubinstein and Taybi (1). This rarely seen autosomal dominant genetic disorder is characterised by growth retardation, severe learning difficulty with progressive blindness and deafness, gastro-oesophageal reflux (GOR), congenital heart diseases and cranio-fascial abnormalities (hypertelorism, broad nasal bridge, micrognathia with narrow mouth opening) (2). These patients are prone to compromised airway (2,3). One-third of patients with RTS have cardiovascular abnormalities that have been associated with complex arhythmias (3).*

Case: *Our patient was diagnosed as RTS at 3 weeks of age, after unremarkable term delivery. The manifestations of RTS were right renal agenesia, left multicystic renal displasia, bilateral cataract and congenital hypothyroidism. Her echocardiogram showed patent foramen ovale and ventricular septal defect with normal ventricular function. Physical examination revealed microretrognathia, broad nasal bridge, low set ears, short neck and high-arced palate, There were no suggestive features of compromised airway.*

At the age of four months and 3300 grams she presented for ocular examination under general anesthesia for bilateral cataract. Before induction we were ready to manage a difficult airway. Pediatric fiberoptic broncoscope, laryngeal mask airways (no:1-1.5), oral-nasal airways, ETT guides were available in the operating room.

Anesthesia was induced by face mask with 50% N_2O/O_2/sevoflurane (8%). A venous cannula was obtained and 3 mg/kg pentothal sodium was administered. Mask ventilation was sufficient to ventilate the patient and we continued to do so. The procedure lasted approximately 20 minutes. We discontinued N_2O/sevoflurane and the patient was fully awake without any complications in 5-7 minutes.

Conclusion: *Scoping the literature we found that RTS manifestations vary widely. Managing airway and the cardiovascular stability are the most challenging parts in anesthetic management of patients with RTS. The manifestations of the syndrome -mostly the craniofascial abnormalities- are the main concern related to compromised airway. In our patient we were prepared in operating room (OR) and we let our patient breathe spontaneously through facial mask. It was a challenge though because GOR is also associated with RTS. In our patient the planned procedure and anesthesia time was very short and so we decided to take the risk which we thought was lower than the risk of difficult airway. We are concluding that -especially in short procedures- mask ventilation is an adequate option especially for the RTS patients with manifestations resembling difficult airway providing that necessary equipment to manage difficult airway are immediately available in OR.*

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OP - IV 4

UPPER RESPIRATORY AND GASTROINTESTINAL INJURY BY CORROSIVE INGESTION; A CASE REPORT

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Introduction: *Ingestion of corrosive agents by children is still a common problem in children. It is a potentially serious problem especially in developing countries which may result in respiratory distress. Some corrosive agents present in household materials are detergant, bleach, sterilising tablets, oven cleaner, disinfectant, etc. We presented a case of corrosive injury with a drug used for callus treatment which includes trichloroacetic acid, monochloroacetic acid, dichloroacetic acid in solution form.*

Case Presentation: *A 3 year-old boy was admitted to intensive care unit with severe respiratory distress from emergency department. He accidentally ingested approximately 5 ml of corrosive agent. He was suffering from pain, respiratory distress and haematemesis. Laboratory tests revealed leucocytosis (26.300/U) , anemia (hemoglobin 8.8 g/dl) and replacement was performed with erythrocyte suspension 20 ml / kg. The chest X ray was normal. He was desaturated and successfully entubated in spite of damaged upper airway with epiglottic and glottic edema. Central venous catheterization was performed through internal jugular vein and upper GI endoscopy was performed in emergency condition by pediatric surgeons. A nasogastric tube was positioned in the stomach with endoscopy guidance and there was no perforation with grade IIa and IIb for esaphagus, and grade IIIa for stomach. We used a combination of antibiotic therapy, correction of electrolyte disturbance, total parenteral nutrition, and respiratory therapy were applied. Also mycostatin, omeprazole, oral sucralfate and systemic steroids were ordered. He was sedated with remifentanyl infusion. Weaning was successful on day 3 in intensive care unit. On day 7 he was discharged to pediatric surgery ward.*

Discussion: *Children with severe respiratory complications of corrosive ingestions have been described before but significant respiratory symptoms were uncommon. In our case, the patient was required intubation for respiratory distress including stridor and oxygen requirement. Mucosal damage to the superior surface of the epiglottis produced severe respiratory compromise. In conclusion, ingestion of corrosive substances may cause respiratory distress requiring long term intubation. In our case the duration of mechanical ventilation was short. The duration of mechanical ventilation should be as short as possible in such cases to cause further mucosal damage in upper respiratory tract.*

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OP - IV 5

AIRWAY MANAGEMENT OF A 14-DAY-OLD NEWBORN WITH CONGENITAL MAXILLO-MANDIBULAR FUSION

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Introduction: *Congenital maxillo-mandibular fusion (syngnathia) is an anomaly characterized with limited mouth opening, leading to airway and feeding difficulties. Our aim is to present the airway management during tracheostomy procedure of a newborn diagnosed to have syngnathia.*

Case: *Our patient was born to a 22-year-old G1P1 mother, via cesarean section at 37 week of gestation, with birth weight of 2354 gr. Immediately after birth, patient was admitted to ICU due to congenital anomalies of face and jaw. Radiolgraphic examinations revealed a small mouth opening, oral cavity, maxilla-mandibular fusion, hypoplasic mandible and maxillary bone dysplasia. The right nasal passage was narrowing throughout vomer, whereas the left was patent. On admission to ICU, blood gas analysis revealed pH: 7.03, PCO_2: 92 mmHg, PO_2: 70 mmHg and HCO_3: 23.4 mEq L^{-1}. nIMV was applied via nasal cannula. During follow-up period, patient had respiratory insufficiency leading to bradyarrhythmia. In the end of 3 min CPR, the hemodynamic parameters improved, and remained within normal ranges. The patient was referred to our hospital for further examination and treatment. In our hospital, the patient was followed up with CPAP mode via nasal cannula. Respiratory functions deteriorated gradually and indicated tracheostomy on 14th day of birth.*

On arrival to operating room, the patient was mechanically ventilated via nasal cannula in incubator. Due to congenital anomalies of face and jaw, oral cavity was not accessible. The 2.8mm FOB was prepared, however, did not pass through endotracheal tubes of 2.5-3.0mm ID. In order to advance tube into trachea, bronchoscope was advanced up to vocal cords. 0.038 F guide wire was advanced through vocal cords via irrigation lumen. 0.5 $mg.kg^{-1}$ rocuronium was administered and bronchoscope was gently pulled out. 3.0 mm endotracheal tube was advanced over guide wire into trachea. Tracheostomy was performed without complications. In return of spontaneous breathing and adequate emergence, patient was transferred to ICU. Three days after the operation a surgical procedure was scheduled to provide access to oral cavity through bone and soft tissue. In post-operative period patient did not need oxygen supplement.

Conclusion: *A flexible guide wire can be used through irrigation lumen of fiberoptic bronchoscope, when endotracheal tube cannot be advanced over bronchoscope itself.*

OP - IV 6

FIBEROPTIC NASAL INTUBATION IN A PATIENT WITH SEVERE KYPHOSIS AND ANKYLOSED CERVICAL SPINE

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Introduction: *Difficult intubation is among the most challenging conditions for anesthesiologists. To be familiar with the tools to handle with difficult-to-intubate patients is an important concern. We hereby report a case of severe kyphosis and ankylosed cervical spine in which we performed fiberoptic nasal intubation (FNI).*

Case Report: *A 69-years-old male patient who complained of no defecation and gas passage for 1 week was referred to our hospital. General surgeons decided to perform an emergency laparotomy after detailed laboratory and clinical examinations. In the operating room, the patient's general appearance was somnolent. He had difficulty in breathing and could not lie down supine. A severe thoracic kyphosis and ankylosed cervical spine was noted while his Mallampati score was 3. Laboratory values were as below: white blood count 23.800, glycemia 171, urea 74, creatinine 2.1, sodium 127, potassium 4.6. Arterial blood gas analysis on room air showed the following: pH 7.092, PCO_2 79,8, PO_2 32, SaO_2 44,2. A fiberoptic nasal intubation was planned for the patient. Following preoxygenation for three minutes, topical nasal vasoconstriction was achieved with cotton swabs soaked with epinephrine in both nostrils. Topical anesthesia of the larynx was performed with lidocaine spray. One mg of midazolam was given for sedation. During FNI, supplemental oxygen was given through a facemask. After a successful intubation, the patient was given propofol, fentanyl and rocuronium. The duration of bilateral inguinal herniorrhaphy and omentum resection surgery leaving the abdomen open was 150 minutes.*

Conclusion: *Choices for difficult intubation are limited in the patients with limited neck movements. A successful FNI may serve as a lifesaving option in these patients.*

OP - IV 7

ANESTHETIC APPROACH TO PATIENTS WITH SPINAL MUSCULAR ATROPHY

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Introduction: *Spinal muscular atrophy (SMA) is an autosomal recessive neuromuscular disorder characterized by the degeneration of the motor neurons located in the anterior horn of the spinal cord. The disorder results in lower motor neuron lesion. Intercostal and accessory muscles can be affected in the later stages of the disease. The diagnosis is based on the clinical findings, electromyography, and muscle biopsy. The aim of this case report was to examine the anesthetic management of a patient with SMA undergoing thyroidectomy operation and to review the current literature.*

Case: *A 25-year-old female patient was examined in the anesthesia outpatient clinic before undergoing thyroidectomy. It was found that the patient had been diagnosed with SMA 15 years ago. The patient's medical history was not remarkable for drug use. The neurological examination revealed bilateral loss of muscle strength (4/5) in the upper and lower extremities. The laboratory tests were normal. When the patient was moved to the operating theater, soda lime in the anesthesia circuit was replenished, and dantrolene was obtained. The induction of anesthesia was achieved by low doses of lidocaine, propofol, and rocuronium. The anesthesia was maintained by the infusion of propofol/remifentanyl and mixture of O2 and air. The patient remained stable during the operation, and the procedure was completed in 60 minutes without any complications. The muscle relaxant effect was reversed with 100 mg sugammadex, and the patient was extubated when the respiration was sufficient. The postoperative analgesia was achieved with intravenous tramadol administration. The patient's vital findings were stable in the recovery room, and she was transported to the regular ward.*

Conclusion: *Anesthetic management is challenging in patients with SMA. Muscle weakness, respiratory complications caused by the anesthesia, hypersensitivity to non-depolarizing neuromuscular blockade, hyperkalemia induced by succinylcholine, rhabdomyolysis, and malignant hyperthermia can be encountered. In conclusion, the anesthetic management of the patients with SMA should be carefully and rigorously planned and conducted.*

OP - IV 8

VENTRICULAR ASSIST DEVICE AND TRANSESOPHAGEAL ECHOCARDIOGRAPHY

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Introduction: *Mechanical circulatory support, with a left ventricular assist device (LVAD) is used in increasing number of patients for treatment of advanced heart failure as bridge-to-transplant. Transesophageal echocardiography (TEE) is specially used to monitor right ventricular and left ventricular function, correct position of the cannulas and response to pharmacological treatment. Two patients diagnosed as cardiomyopathy with therapy resistant heart failure, undergoing Heart Ware LVAD implantation are intraoperatively monitored using TEE. In these two cases we describe the usefulness of TEE for optimal perioperative management for LVAD insertion.*

Cases: *Case 1: 58 years old, ischemic cardiomyopathy, EF%: 35%, diabetic and hypertensive patient, TEE diagnosed 2° Tricuspit insufficiency, global hypokinesia. Correct position of cannulas and adequate right and left ventricular function were monitored by TEE (Fig1).*

Case 2: 34 years old, dilated cardiomyopathy, EF%: 25%, TEE diagnosed PFO, 2° Tricuspit insufficiency. PFO was closed before device insertion. Correct position of cannulas and adequate right and left ventricular function were monitored by TEE (Fig 2).

Adequate pump function and titration of vasopressor and inotropic agents, RV contractility improved and thereby the filling of the LV. Two patients could hemodynamically be stabilized before transport to the intensive care unit.

Conclusion: *The complex interaction of the RV and LV functions and correct positioning of the cannula, during LVAD implantation in patients with end-stage cardiac failure is improved by simultaneous visualization of cardiac performance of both ventricles and cannula positioning by means of intraoperative multiplane TEE.*

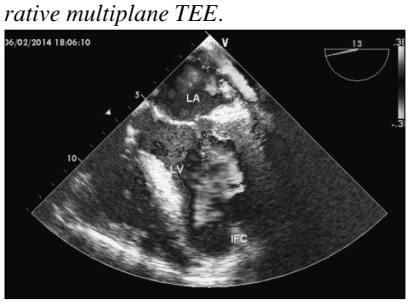

Fig1: 4 Chamber, IFC: Inflow cannula

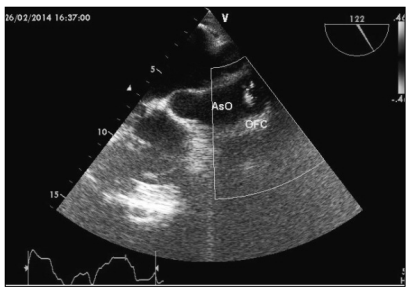

Fig 2: As Aort,Long axis, OFC: Outflow cannula

OP - IV 9

INTRAOPERATIVE TRANSESOPHAGEAL ECHOCARDIOGRAPHY IN PEDIATRIC CARDIAC SURGERY: OUR EXPERIENCE

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Introduction: *The usage of transesophageal echocardiography (TEE) as an intraoperative management tool for pediatric cardiac surgery has increased (1). Anesthesiologists can utilize TEE to assess hemodynamic status, intracardiac shunting, and ventricular function, thereby guiding fluid management, anesthetic drug selection, and the use of inotropic agents. In addition, TEE is used to facilitate cardiac de-airing after the bypass period. In this study, we want to present the TEE findings before and after cardiac surgery procedure.*

Method: *In the absence of formal contraindications, TEE has been used in our institution between 2012 and 2013 years for 280 patients requiring surgery for congenital heart disease, provided that the patient's weight exceeds 4 kg in the operating room. TEE probe (Esaote Biomedica, Florence, Italy)was placed after the intubation. Different investigations, according to the patients' particular pathologic conditions, were also performed in addition to standard TEE studies before bypass and after bypass periods. Our findings were confirmed by a pediatric cardiologist. All patients completing the surgical intervention underwent postoperative TEE.*

Results: *Surgical alterations of management were reported in 5.3 % of cases and the need for a repeat bypass run was reported in 7.1 % because of residual defects identified by postoperative TEE and successfully treated. Complications related to TEE were not seen in any patients.*

Conclusion: *TEE can confirm preoperative diagnoses and can help acquire the relevant missing information. TEE has been shown to be beneficial in assessing the sufficiency of the surgical repair and in the detection of residual defects, shunting, valvular regurgitation, and stenosis after bypass period. Intraoperative TEE is also a safe hemodynamic monitoring in pediatric congenital cardiac surgery.*

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OP - IV 10

THE COMPARISON OF PRISM AND APACHE II SCORING SYSTEMS FOR MORTALITY RISK IN PEDIATRIC CARDIAC SURGERY INTENSIVE CARE UNIT

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Objective: *To compare Pediatric Risk of Mortality (PRISM) and Acute Physiology and Chronic Health Evaluation II (APACHE II) scores which is modified for pediatric patients in predicting hospital mortality in pediatric cardiac intensive care unit (ICU).*

Method: *One hundred and twenty four patients were admitted to the pediatric ICU from December 2005 to November 2011 with born transposition of the great arteries (TGA). Babies, who were 0-30 days old, were enrolled in this study. The Jaten operation was performed in all cases. Their PRISM and modified APACHE II scores at admission and the highest score during hospitalization were retrospectively recorded and collected with regard to morbidity and mortality.*

Results: *The PRISM and modified APACHE II scores were calculated on admission, at postoperative 1., 3. and 7. days until ICU discharge. Of the 124 patients, 22 died (mortality rate 17.7%). Patients' mechanical ventilation and ICU stay duration was 8.9 and 13 days. Higher PRISM and APACHE II scores on the 1. day was found correlated with the duration of mechanical ventilation time but on 7. day of ICU no correlation was established. PRISM scores on 1. and 3. days were significantly higher in exitus cases (p>0,05). All days APACHE II scores were not statistically significant in exitus cases.*

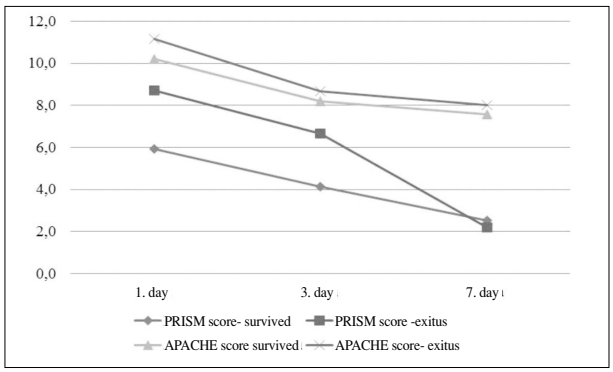

Figure 1: Mortality –exitus variance between two scores

Conclusion: *Scoring systems are arrived at evaluation of the patient's mortality risk in the ICU by assigning a score to the patient and predicting the outcome (1). PRISM and modified APACHE II scores provide the clinician with important information on mortaliy risk in pediatric intensive care units. To determine the mortality risk in pediatric cardiac surgery intensive care unit, suffient and efficient score systems are needed. The PRISM score shows adequate discriminatory capacity and calibration and thus constitutes a useful tool for the assessment of prognosis for pediatric patients admitted to a tertiary Pediatric Intensive Care Unit. We conclude that; to predict the mortality risk in pediatric cardiac surgery, PRISM score is significantly correlated than modified APACHE II score. We believe that there is a need for further studies for pediatric cardiac intensive care units.*

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OP - IV **11**

TRACHEAL RUPTURE AS A COMPLICATION OF OUT-OF-HOSPITAL EMERGENCY TRACHEAL INTUBATION

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Introduction: *Tracheobronchial rupture is rare, but the most life-threatening complication of the emergency tracheal intubation (ETI) with an incidence of 0.005%. The most common clinical manifestations are subcutaneous emphysema, dyspnea and hemoptysis. Radiological findings include pneumomediastinum and pneumothorax. Our aim is to present a patient diagnosed to have tracheal rupture as a complication of out-of-hospital emergency endotracheal intubation.*

Case: *The EMS was activated for a 78 year-old woman, for deterioration in level of consciousness at home. She had hypertension, diabetes and COPD. On arrival to the scene, the patient was unconscious and had no pulse. The EMS personnel started CPR, and performed endotracheal intubation with ETT of 8.0 mm ID immediately. On the 4th minute of CPR, the spontaneous circulation returned with sinus rhythm. The patient was unconscious with no spontaneous breathing. She was transported to our hospital for post-resuscitation care. On arrival, there was subcutaneous emphysema. Pneumomediastinum and pneumothorax was detected on chest X-ray and CT scan. Tracheal rupture was detected and emergency surgery was indicated.*

On arrival to operating room, the patient was intubated, and unconscious. The vital parameters were within normal ranges. Arterial blood gas revealed respiratory acidosis. Anesthesia was induced by thiopental and midazolam. For neuromuscular blockade, vecuronium; and for maintenance, sevoflurane and remifentanyl infusions were used. On normothermic cardiopulmonary bypass, tracheal repair was started with tube exchanger inside, which was placed before the ETT was pulled out. Large defects were observed on posterior wall of trachea. On completion of anastomosis, 6.5 mm ID flexible tube was placed over exchanger. Location was confirmed with FOB. To avoid necrosis, related to pressure, in the site of anastomosis, cuff was not inflated. Cuff leak was confirmed. Ventilation of both lungs was confirmed before discontinuing of CPB. Intraoperatively, 5 units of packed red blood cell and 3 units fresh frozen plasma were used. The patient was transported to ICU, intubated and on vasopressor support. On the 4th postoperative day, the patient died due to multiple organ failure.

Conclusion: *In conclusion, for repair of tracheal rupture, exchanger can be used safely during cardiopulmonary bypass without any complications. Aside from management during repair of tracheal rupture, it is vital to prevent such fatal complications. During CPR, ventilation should be provided by bag-mask or supraglottic airway devices. ETI should only be attempted by trained and experienced personnel.*

OP - IV **12**

ANGIOTENSIN II RECEPTOR ANTAGONISTS AND ANESTHESIA

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In the treatment of hypertension, there has been an increasing trend to the widespread use of Angiotensin II receptor antagonists (AIIRA) due to its positive effects on morbidity and mortality. However, the observation of severe hypotension in patients treated with AIIRA in anesthesia induction has caused controversy related to the termination time of the use of these drugs in the preoperative period.

In this paper, the case of a patient with hypotension resistant to treatment,and taking AIIRA and calcium channel blockers, is discussed relevant to the information in the literature.

Case: *Elective surgery was planned for a 58-year old female for L2-5 lumbar spinal stenosis. The patient had a history of rheumatoid arthritis, Type 2 diabetes mellitus and hypertension and was taking metformin, sulfasalazine, irbesartan-hydrochlorothiazide and amlodipine. On the morning of the operation, the patient was given anti-hypertensives and was accepted into the operating room, where following routine monitorisation, blood pressure was measured non-invasively as 160/85mmHg. Heart rate was 80 beats/min and blood sugar was 100mg/dl. Following problem-free induction with 200mg propofol, 100mcg fentanyl and 60mg rocuronium, endotracheal intubation was applied without any problems. Anesthesia was maintained with 1% sevoflurane in a 50% O_2-N_20 mixture.*

After intubation, as blood pressure was 60-70/30-40 mmHg rapid fluid infusion and repeated adrenalin bolus were administered. After waiting for 45 mins for a response to the treatment, as the blood pressure had not improved, the patient was woken and extubated. When the blood pressure values were 120/65, the patient was transferred to the clinic. The antihypertensive treatment was stopped and 2 days later the patient was again admitted to the operating room. After induction was made in the same way, the patient again did not respond to the treatment and on the observation of hypotension, the patient was woken and he was not allowed to be operated.

Conclusion: *According to the ESC guide, although the continuation of antihypertensive treatment is recommended in non-cardiac surgery of patients with chronic hypertension, there is no consensus on patients using AIIRA. While some researchers recommend the use of medication on the morning of the operation, the majority of researchers advocate the necessity of stopping the medication 24 hours preoperatively. In the case presented here, the treatment in use had continued on the first occasion, but on the second admittance for surgery the treatment was stopped 24 hours preoperatively. However, despite this, severe hypotension occurred on both occasions.*

It should be kept in mind that even when medication is stopped in the preoperative period in patients with AIIRA hypertensive treatment, severe hypotension may be encountered. We believe that it may be necessary to change the medication in the preoperative period for these patients who are to undergo elective surgery.

OP - IV **13**

A CASE OF IATROGENIC PNEUMOTHORAX CAUSED BY THE RUPTURE OF SUBPLEURAL BULLAE

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Introduction: *Pneumothorax is the collapse of the lung due to the collection of air in the pleural cavity. The incidence of iatrogenic pneumothorax due to subclavian vein catheterization varies from 1,5 - 3,1 % (1). We present a case of pneumothorax, which developed intraoperatively during subclavian catheterization.*

Case: *A 59-year-old female patient, who was scheduled for surgery due to intracranial tumor, had complained of cough during her preoperative visit. The pulmonologist found no evidence of any lung disease after evaluation. The patient was admitted to the operation room and was monitored. An intravenous catheter was inserted. The patient was intubated after the induction of anesthesia and mechanical ventilation was administered. Invasive arterial monitoring was established. Subclavian vein was catheterized on second attempt by Seldinger technique and with manual ventilation. At this time, an increase in the airway peak pressure and absence of breath sounds were detected in the right hemithorax. A chest tube was placed after draining the air with an injection at the second intercostal space by the thoracic surgeon. Peak pressure values went back to normal, breath sounds and hemodynamic parameters improved.*

Conclusion: *Before deciding on the location of the catheter in the preoperative period, existence of apical bullae, rib and clavicle anomalies and chronic obstructive pulmonary disease should be investigated by careful examination of chest x-rays (2). In this case, the development of pneumothorax due to the rupture of subpleural bullae in the right apex was observed while comparing the preoperative and the control chest x-rays. Although the existence of bullae couldn't be determined preoperatively, the pneumothorax was identified at an early stage and it was successfully treated.*

In this report we have emphasized the importance of detailed and careful preoperative evaluation of the patient on the prevention of the development of iatrogenic pneumothorax.

REFERENCES

1. N Engl J Med 2003; 348: 1123-1133.

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