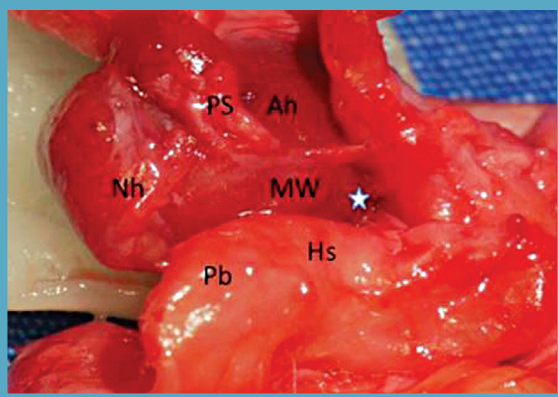


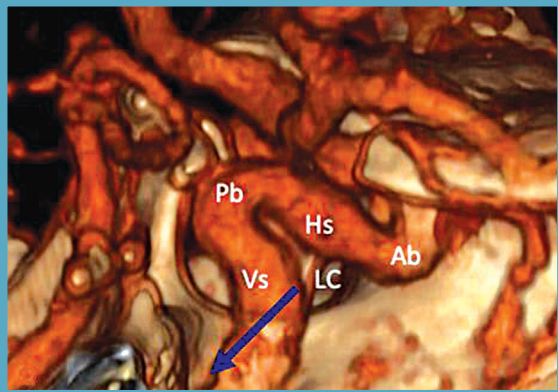
Turkish Neurosurgery

Official Journal of the Turkish Neurosurgical Society

ISSN 1019-5149 - NLM ID 9423821
VOLUME 21 - NUMBER 3 - YEAR 2011



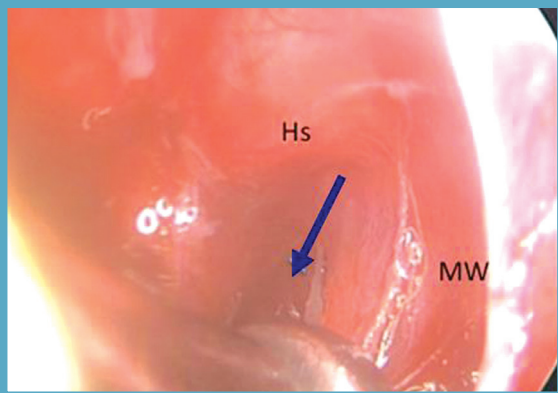
Natural Course of the Arteriovenous Malformations of the Brain Initially Presented by Hemorrhage: Analysis of a Clinical Series of 39 Patients



Does Disc Space Height of Fused Segment Affect Adjacent Degeneration in ALIF? A Finite Element Analysis

The Surgical Treatment of Plagiocephaly

New Endoscopic Surgical Classification and Invasion Criteria for Pituitary Adenomas Involving the Cavernous Sinus



Computed Tomography Findings in Cerebral Hydatid Disease

Ultrastructural Changes in the Lilliequist Membrane in the Hydrocephalic Process and Its Implications for the Endoscopic Third Ventriculostomy Procedure

Neuroprotective Effect of ACE Inhibitors in Glutamate - Induced Neurotoxicity: Rat Neuron Culture Study

Subarachnoid, Subdural and Interdural Spaces at the Clival Region: An Anatomical Study





Turkish Neurosurgery

Official Journal of the Turkish Neurosurgical Society

TURKISH NEUROSURGICAL SOCIETY

Volume: 21 Number: 3 Year: 2011

www.turkishneurosurgery.org.tr

PRESIDENTS

Nurhan Avman	1985-1986
Aykut Erbenli	1986-1987
Özdemir Gürçay	1988-1988
Tunçalp Özgen	1988-1989
Yücel Kanpolat	1989-1990
Osman E. Özcan	1990-1992
Ertekin Arasil	1992-1993
Yamaç Taşkın	1993-1995
Yücel Kanpolat	1995-1996
Nur Altınörs	1996-1997
Kemali Baykaner	1997-1998
Kaya Aksoy	1998-2000
Necmettin Pamir	2000-2002
Nurcan Özdamar	2002-2004
Selçuk Palaoğlu	2004-2006
Mehmet Zileli	2006-2008
Ethem Beşkonaklı	2008-2010
Murad Bavbek	2010-

EDITORS

Tunçalp Özgen	1989-1989
Yücel Kanpolat	1989-1990
Osman E. Özcan	1990-1992
Selçuk Palaoğlu	1992-1994
Nur Altınörs	1994-1995
Selçuk Palaoğlu	1995-1996
Zafer Kars	1996-1998
Kaya Aksoy	1998-2000
Murad Bavbek	2000-2003
Erdener Timurkaynak	2003-2004
Kemal Benli	2004-2006
Hakan Caner	2007-

Turkish Neurosurgery has been accepted
for indexing in:
SCIENCE CITATION INDEX EXPANDED
INDEX MEDICUS, MEDLINE, PubMed,
Scopus

Editor:

Hakan Caner : hakanc@baskent-ank.edu.tr

Associate Editors:

Burçak Bilginer	: burcak@tr.net
Bülent Düz	: bulentduz@gmail.com
Salih Gülşen	: salihgulsen07@gmail.com
Hakan Seçkin	: hakanseckin@tr.net
Sait Şirin	: drsirir@yahoo.com
Cem Yılmaz	: cemerimilmaz@gmail.com

EDITORIAL BOARD

International

Ossama Al-Mefty, <i>USA</i>	Neal F. Kassell, <i>USA</i>	James T. Rutka, <i>Canada</i>
Michael J. Apuzzo, <i>USA</i>	Takeski Kawase, <i>Japan</i>	Christian Sainte-Rose, <i>France</i>
Issam A. Awad, <i>USA</i>	Andrew H. Kaye, <i>Australia</i>	Majid Samii, <i>Germany</i>
Mustafa Başkaya, <i>USA</i>	Hidenori Kobayashi, <i>Japan</i>	Bernd W. Scheitauer, <i>USA</i>
Edward C. Benzel, <i>USA</i>	Shigeaki Kobayashi, <i>Japan</i>	Johannes Schramm, <i>Germany</i>
Peter M. Black, <i>USA</i>	Edward R. Laws, Jr, <i>USA</i>	Laligam Sekhar, <i>USA</i>
Mario Brock, <i>Germany</i>	Kevin Lee, <i>USA</i>	Marc Sindou, <i>France</i>
Rudolph Fahlbusch, <i>Germany</i>	Joseph C. Maroon, <i>USA</i>	Robert F. Spetzler, <i>USA</i>
Michael Fehlings, <i>Canada</i>	David G. McLone, <i>USA</i>	Kintomo Takakura, <i>Japan</i>
Fleming Gjerris, <i>Denmark</i>	Dattatraya Muzumdar, <i>India</i>	David GT Thomas, <i>England</i>
Ziya Gökaslan, <i>USA</i>	Evandro de Oliveira, <i>Brazil</i>	Nicolas de Tribolet, <i>Switzerland</i>
Murat Günel, <i>USA</i>	Robert J. Ojemann, <i>USA</i>	M. Gazi Yaşargil, <i>USA</i>
John A. Jane, <i>USA</i>	Albert L. Rhoton Jr, <i>USA</i>	
Tetsuo Kanno, <i>Japan</i>	Concezio Di Rocco, <i>Italy</i>	

National

Bektaş Açıkgöz, <i>Zonguldak</i>	İlhan Elmacı, <i>İstanbul</i>	Sait Naderi, <i>İstanbul</i>
Nejat Akalan, <i>Ankara</i>	Atilla Erdem, <i>Ankara</i>	Nezih Oktar, <i>İzmir</i>
Nur Altınörs, <i>Ankara</i>	Yusuf Erşahin, <i>İzmir</i>	Fahir Özer, <i>İstanbul</i>
Nuri Arda, <i>İzmir</i>	Engin Gönül, <i>Ankara</i>	Tunçalp Özgen, <i>Ankara</i>
Ali Arslantaş, <i>Eskişehir</i>	Murat Hancı, <i>İstanbul</i>	Ertuğ Özkal, <i>Konya</i>
Başar Atalay, <i>İstanbul</i>	Faruk İldan, <i>Adana</i>	Selçuk Palaoğlu, <i>Ankara</i>
Ayhan Attar, <i>Ankara</i>	Servet İnci, <i>Ankara</i>	Necmettin Pamir, <i>İstanbul</i>
Murad Bavbek, <i>Ankara</i>	Yücel Kanpolat, <i>Ankara</i>	Ali Savaş, <i>Ankara</i>
Kemali Baykaner, <i>Ankara</i>	Zafer Kars, <i>Sivas</i>	İhsan Solaroğlu, <i>Ankara</i>
Zafer Berkman, <i>İstanbul</i>	M. Yaşar Kaynar, <i>İstanbul</i>	Tuncer Süzer, <i>İstanbul</i>
Ethem Beşkonaklı, <i>Ankara</i>	Evren Keleş, <i>İstanbul</i>	İnan Turantan, <i>İstanbul</i>
Süleyman Çaylı, <i>Malatya</i>	Talat Kırış, <i>İstanbul</i>	Uğur Türe, <i>İstanbul</i>
Fahrettin Çelik, <i>Samsun</i>	Kemal Koç, <i>Kayseri</i>	Mehmet Zileli, <i>İzmir</i>
M. Nusret Demircan, <i>İstanbul</i>	Ender Korfalı, <i>Bursa</i>	İbrahim Ziyal, <i>Ankara</i>
Nihat Egemen, <i>Ankara</i>	Melike Mut, <i>Ankara</i>	

Redaction: Dr. Aydın Yuluğ, Aytaç Yıldızeli

Secretary: Mukadder Karakaya Çerçi, Nurhan Şen

Turkish Neurosurgery

Volume: 21 Number: 3 Year: 2011

Official Journal of the Turkish Neurosurgical Society

Published quarterly by the Turkish Neurosurgical Society
(January, April, July, October)

Owned and controlled by the Turkish Neurosurgical Society

Copyright owner on behalf of the Turkish Neurosurgical Society:
Murad BAVBEK

Publishing Manager:
Uğur TÜRE

Key title: Turkish Neurosurgery
Abbreviated key title: Turk Neurosurg
www.turkishneurosurgery.org.tr

ISSN: 1019-5149

NLM ID: 9423821

Subscription: Sent free to the Turkish Neurosurgical Society members.
Non-members should contact the Society for subscription.

Publishing Services

BULUŞ DESIGN AND PRINTING SERVICES COMPANY
Bahriye Üçok Caddesi 9/1 Beşevler, 06500 Ankara, Turkey
Phone: +90 312 222 44 06 Fax: +90 312 222 44 07
www.bulustasarim.com.tr

Printed at

Miki Matbaacılık San. ve Tic. Ltd. Şti.
Matbaacılar Sanayi Sitesi 506 Sk. No: 27 İvedik, Ankara, Turkey
Phone: +90 312 395 21 28

This issue is published as: 1150 copies.

Printing Date: 29.07.2011

Turkish Neurosurgical Society
Taşkent Caddesi 13/4 06500 Bahçelievler, Ankara/TURKEY
Phone: +90 312 212 64 08 Fax : +90 312 215 46 26
E-mail: info@turkknorosirurji.org.tr
www.turkknorosirurji.org.tr
www.turkishneurosurgery.org.tr

Review of the articles in the journal to make sure they conform to publishing standards, typesetting, the review of English abstract and sources, getting the journal ready for publication and finally the publishing process has been the responsibility of Buluş Design and Printing Services Company.

The paper used to print this journal conforms to ISO 9705: 1994 standard (Requirements for Permanence).
The National Library of Medicine suggests that biomedical publications be printed on acid-free paper (alkaline paper).

INSTRUCTION TO THE AUTHORS

Turkish Neurosurgery is a peer-reviewed, multidisciplinary journal directed at an audience of neurosurgery physicians and scientists. The official language of the journal is **English**. The journal publishes original articles in the form of clinical and basic research. *Turkish Neurosurgery* will only publish studies that have institutional review board (IRB) approval and have strictly observed a sufficient follow-up period. With the exception of reference presentation, *Turkish Neurosurgery* requires that all manuscripts be prepared in accordance with the *Uniform Requirements for Manuscripts Submitted to Biomedical Journals*.

Turkish Neurosurgery periodically publishes the following papers: Original article, Reviews, Clinical and Experimental Studies, Case Reports, Technical notes, Historical Perspective, and Letters to the editors.

Manuscript Submission

Authors are to submit their manuscripts through the Web-based tracking system at <http://www.turkishneurosurgery.org.tr>. The site contains instructions and advice on how to submit manuscripts, guidance on the creation/scanning and saving of electronic art, and supporting documentation. In addition to allowing authors to submit manuscripts on the Web, the site allows authors to follow the progression of their manuscript through the peer review process. Authors who submit their manuscripts through the Web-based tracking system are asked not to send hard copies of the manuscript to the editorial office. Please address all inquiries regarding manuscripts not yet accepted or published to the Journal's editorial office. The editorial office will acknowledge receipt of your manuscript and will send you a manuscript number for reference.

Revised Submission

Author's comments to the reviewers are required for revised submissions. Authors must address the reviewer's concerns/suggestions and whether the change was made or not. Authors must also highlight the changes made within the text. Do not track the additions or deletions to the manuscript. If the Authors do not want to revise the manuscript within a period of two months the manuscript will automatically be declined.

Patient anonymity and informed consent: It is the author's responsibility to ensure that a patient's anonymity is carefully protected and to verify that any experimental investigation with human subjects reported in the manuscript was performed with informed consent and followed all the guidelines for experimental studies with human subjects required by the institution(s) with which all the authors are affiliated. Authors should mask patients' eyes, private parts and remove patients' names from all figures.

Copyright: All authors must sign a copy of the Journal's "Copyright Transfer/Conflict of Interest and Device Status Form" and submit it to the Editorial Office if the manuscript is accepted for publication in Turkish Neurosurgery. The authors of all published material must sign this form at the time of manuscript acceptance.

Permissions: Authors must submit written permission from the copyright owner (usually the publisher) to use direct quotations, tables, or illustrations that have appeared in copyrighted form elsewhere, along with complete details about the source. Any permissions fees that might be required by the copyright owner are the responsibility of the authors requesting use of the borrowed material and not the Turkish Neurosurgical Society.

Preparation of Manuscript

Manuscripts that do not adhere to the following instructions **WILL BE RETURNED** to the corresponding author for technical revision before undergoing peer review.

General format: All manuscripts should be submitted in English, and formatted for standard 8 1/2 x 11-inch (21 x 28-cm) paper with at least a 1-inch (2.5 cm) margin on all sides and double-spaced.

Style: Pattern manuscript style after the *American Medical Association Manual of Style (9th edition)*, *Stedman's Medical Dictionary (27th edition)* and *Merriam Webster's Collegiate Dictionary (10th edition)* should be used as standard references. Refer to drugs and therapeutic agents by their accepted generic or chemical names, and do not abbreviate them. Use code numbers only when a generic name is not yet available. In that case, supply the chemical name and a figure giving the chemical structure of the drug. Capitalize the trade names of drugs and place them in parentheses after the generic names. To comply with trademark law, include the name and location (city and state in USA; city and country outside USA) of the manufacturer of any drug, supply, or equipment mentioned in the manuscript. Use the metric system to express the units of measure and degrees Celsius to express temperatures, and SI units rather than conventional units.

Submit the manuscript electronically via: <http://www.turkishneurosurgery.org.tr> in the following order:

1) Title page: Include on the title page (a) complete manuscript title; (b) authors' full names, highest academic degrees, and affiliations; (c) name and address for correspondence, including fax number, telephone number, and e-mail address; (d) address for reprints if different from that of corresponding author; (e) sources of support that require acknowledgment; (f) any other acknowledgment the authors wish to include. Please verify that the spelling, order, and affiliation of each author are correct. The Journal is not responsible for published misspelled names due to author error. **A Running Head** should appear in the title page. The running head should be no more than three to five words from the title, and should **NOT** include the authors' names.

2) Structured Abstract (only for clinical and experimental research papers), and Key Words. The following subheads must be included in the Structured Abstract: **Objective (Background), Methods, Results, Conclusions.** Do not cite references in the abstract, and limit the use of abbreviations and acronyms. The structured abstract must **be no more**

than 200 words. List three to eight **Key Words after the Abstract**. It is not necessary to provide a structured abstract for submissions to the Case Reports, Review article, Technical note, Historical article and Letters to the editor sections.

3) **Text:** Organize the manuscript into four main headings: **Introduction, Materials and Methods, Results, and Discussion**. For Clinical Trials, Experimental and Anatomic Studies and similar study designs, please attach the Ethical Committee Approval Form to the manuscript submission. Define abbreviations at first mention in text and in each table and figure. If a brand name is cited, supply the manufacturer's name and address (City and state/country).

Terms: Do not use the term hardware. Acceptable substitutions include implants and instrumentation. Constructs or montage may be used if the reference is to a particular pattern of fixation points for the instrumentation.

Abbreviations: For a list of standard abbreviations, consult the Council of Biology Editors Style Guide (available from the Council of Science Editors, 9650 Rockville Pike, Bethesda, MD 20814) or other standard sources. Write out the full term for each abbreviation at its first use unless it is a standard unit of measure.

4) **Supplemental video files should be submitted following these conditions:**

- I- .wmv, .mov, .flv, .qt, .mpg, .mpeg, .mp4 formats only
- II- Video files should be formatted with a 320 x 240 pixel minimum screen size.
- III- Videos **MUST** include narration from the senior author in English.
- IV- Only 1 supplemental video may be uploaded. Supplemental video should be no longer than 8 MB. Videos may include narration from the senior author in English.

5) **References:** The authors are responsible for the accuracy of the references. Key the references (double-spaced) at the end of the manuscript. Cite references in text in alphabetical order. Do not link the references to the text. Cite unpublished data, such as papers submitted but not yet accepted for publication or personal communications, in parentheses in the text. List all authors of the reference. Refer to the List of Journals Indexed in Index Medicus for abbreviations of journal names, or access the list at <http://www.nlm.nih.gov/tsd/serials/lji.html>. Sample references are given below:

Journal article

1. Guiot BH, Khoo LT, Fessler RG: A minimally invasive technique for decompression of the lumbar spine. *Turkish Neurosurgery* 27: 432-438, 2002

Book chapter

2. Sweitzer S, Arruda J, DeLeo J: The cytokine challenge: Methods for the detection of central cytokines in rodent models of persistent pain. In: Kruger L, ed. *Methods in Pain Research*. Boca Raton, FL: CRC Press, 2001: 109-132

Entire book

3. Atlas SW: *Magnetic Resonance Imaging of the Brain and Spine*. Philadelphia: Lippincott Williams & Wilkins, 2001.

Software

4. Epi Info [computer program]. Version 6. Atlanta: Centers for Disease Control and Prevention, 1994.

Online journals

5. Friedman SA. Preeclampsia: A review of the role of prostaglandins. *Obstet Gynecol* [serial online]. January 1988;71:22-37. Available from: BRS Information Technologies, McLean, VA. Accessed December 15, 1990.

Database

6. CANCERNET-PDQ [database online]. Bethesda, MD: National Cancer Institute, 1996. Updated March 29, 1996.

World Wide Web

7. Gostin LO. Drug use and HIV/AIDS [JAMA HIV/AIDS web site]. June 1, 1996. Available at: <http://www.ama-assn.org/special/hiv/ethics>. Accessed June 26, 1997.

5) **Tables and Figures:**

Tables: Create tables in **Word** format using the table creating and editing feature of your word processing software. Do not use Excel or comparable spreadsheet programs. **Tables should not exceed page width of 41 picas or 17.5 cm**. Supply tables together in a separate file. Cite tables consecutively in the text, and number them in that order. Key each on a separate sheet, include the table title, appropriate column heads, and explanatory legends (including definitions of any abbreviations used). **Do not embed tables within the body of the manuscript**. They should be self-explanatory and should supplement, rather than duplicate, the material in the text.

Digital Figures: All electronic art can be submitted through the Web-based tracking system <http://www.turkishneurosurgery.org.tr>

1. **Format:** Electronic art should be created/scanned and saved and submitted either as a **JPEG file**.

2. **Sizing and Resolution:** Line art must have a resolution of at least 1200 dpi (dots per inch), and electronic photographs, radiographs, CT scans, and scanned images must have a resolution of at least 300 dpi. Figures should be sized to fit either 1 column (20 picas/8.4 cm), 1 1/2 columns (30 picas/12.65 cm OR 2 columns (41 picas/17.5 cm) on a page. Sizing and Resolution can be checked through the free Sheridan Digital art checker at <http://dx.sheridan.com/onl>

3. **Fonts:** If fonts are used in the artwork, they must be converted to paths or outlines or they must be embedded in the files. Fonts must be 8 pt and be sized consistently throughout the artwork. The best font to use is Helvetica.

Figure legends: Legends must be submitted for all figures. They should be brief and specific and less than 150 characters or approximately 50 words. List figure legends on a separate page at the end of the manuscript text.

Color figures: The journal accepts for publication color figures that will enhance an article. **Authors who submit color figures will receive an estimate of the cost for color reproduction**. If they decide not to pay for color reproduction, they can request that the figures be converted to black and white at no charge. The authors may also request that their color figures be posted online only.

Manuscript Checklist (before submission. For author reference only)

1. Title page
 - Corresponding author designated, and full mailing address included on title page
 - E-mail address of corresponding author included on title page
 - Running head
 - Permission to reproduce copyrighted materials or signed patient consent forms
 - Acknowledgments listed for grants, technical support, and corporate support on title page
2. Structured abstract with key words (200 words)
3. Manuscript text with page numbers
4. Figure legends
5. Tables (Word, Wordperfect)
6. Figures (jpeg)
7. References double-spaced and cited in alphabetical order

Letter to the Editor: Letters to the Editor can also be submitted through Editorial Manager. Letters should refer to the title and authors of the article the letter is about and should be no longer than **300** words with no more than 3 references. Letters to the Editor are sent to the article authors for response. The Editor-in-Chief makes the final decision on whether letters to the editor and the responses are published.

After Acceptance

Page proofs and corrections: Corresponding authors will receive electronic page proofs to check the copyedited and typeset article before publication. Portable document format (PDF) files of the typeset pages and support documents (e.g., reprint order form) will be sent to the corresponding author via e-mail. Complete instructions for downloading and printing the files and for faxing the corrected pages to the publisher will be provided with the e-mail. Authors without an e-mail address will receive traditional page proofs. It is the author's responsibility to ensure that there are no errors in the proofs. Changes that have been made to conform to journal style will stand if they do not alter the author's meaning. Only the most critical changes of the accuracy of the content will be made. Changes that are stylistic or are a reworking of previously accepted material will not be allowed. The publisher reserves the right to deny any changes that do not affect the accuracy of the content. Authors may be charged for alterations to the proofs beyond those required to correct errors or to answer queries. Proofs must be checked carefully and corrections faxed within 24 to 48 hours of receipt, as requested in the cover letter accompanying the page proofs.

Publisher's contact: Fax corrected page proofs, reprint order forms, and any other related materials to Journal Production Editor, Turkish Neurosurgery, +90 312 212 64 08. Color proofs should be returned to Journal Production Editor, Turkish Neurosurgery, Taşkent Caddesi 13/4, Bahçelievler-06500 ANKARA, TURKEY

Reprints: Authors will receive a reprint order form and a price list with the page proofs. Reprint requests should be faxed with the corrected proofs, if possible. Reprints are normally shipped 6 to 8 weeks after publication of the issue in which the item appears. Contact the Reprint Department, Taşkent Caddesi No: 13/4, Bahçelievler-06500 ANKARA, TURKEY

ORIGINAL INVESTIGATIONS

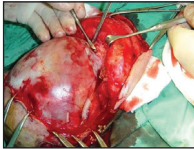
- 271** **Analysis of the Mortality Probability of Preoperative MRI Features in Malignant Astrocytomas**
Malın Astrozitomlardaki Preoperatif MRI Özelliklerinin Ölüm Olasılıđı Analizi
Mehmet Ali EKICI, Turgay BULUT, Bulent TUCER, Ali KURTSOY

- 280** **Natural Course of the Arteriovenous Malformations of the Brain Initially Presented by Hemorrhage: Analysis of a Clinical Series of 39 Patients**
Kanama ile Kendini Gösteren AVM'lerin Doğal Seyri: 39 Olguluk Seri
Goran TASIC, Vladimir JOVANOVIĆ, Branko DJUROVIĆ, Igor NIKOLIC, Milos JANICJEVIC, Miroslav SAMARDZIC, Vaso ANTUNOVIC, Vojislav BOGOSAVLJEVIC

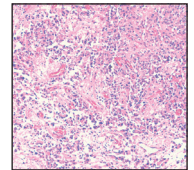
- 290** **Use of Tape Measure in People with or without Back Pain in Assessment of Reposition Error**
Bel Ağrısı Olan ve Olmayan Kişilerde Repozisyon Hatasının Deđerlendirilmesinde Şerit Mezura Kullanımı
Bilge KARA, Arzu GENÇ, Yücel YILDIRIM, Nursen ILCIN

- 296** **Does Disc Space Height of Fused Segment Affect Adjacent Degeneration in ALIF? A Finite Element Analysis**
ALİF de Füzyon Yapılan Segmentin Disk Mesafesi Yüksekliđi Komşu Seviye Dejenerasyonunu Etkiler Mi? Bir Finite Element Analizi
Shujie TANG, Xueying MENG

- 304** **The Surgical Treatment of Plagiocephaly**
Plajiosefalinin Cerrahi Tedavisi
Mithat AKAN, Gokalp SILAV, Gulden AVCI, Gaye TAYLAN, İlhan ELMACI, Tayfun AKOZ

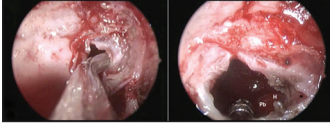


- 315** **Surgical Timing of the Subependymal Giant Cell Astrocytoma (SEGA) with the Patients of Tuberous Sclerosis Complex**
Tüberus sklerozis Kompleksli Subependimal Dev Hücreli Astrositumlu Hastalarda Cerrahi Zamanlama
Mehmet Ali EKICI, Sefer KUMANDAS, Huseyin PER, Arzu EKICI, Bulent TUCER, Hakan GUMUS, Ozlem CANOZ, Ali KURTSOY



- 325** **Memory Difficulties of Adult Patients with Shunted Hydrocephalus: A Clinical Study**
Şant ile Tedavi Edilmiş Yetişkin Hidrosefali Hastalarında Hafıza Kusurları: Bir Klinik Araştırma
Emel ERDOĞAN BAKAR, Bulent BAKAR

330



A New Endoscopic Surgical Classification and Invasion Criteria for Pituitary Adenomas Involving the Cavernous Sinus

Kavernöz Sinüsü Tutan Hipofiz Adenomlarında Yeni Bir Endoskopik Cerrahi Sınıflandırma ve İnvazyon Kriterleri

Savas CEYLAN, Ihsan ANIK, Kenan KOC

340

The Effects of Analgesia-Sedation on the Immune System before and after Cerebral Digital Subtraction Angiography

Serebral Dijital Subtraksiyon Anjiyografi Öncesi ve Sonrası Analjezi-Sedasyonun İmmün Sistem Üzerine Etkileri

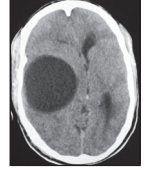
Ercan TURECI, Osman KIZILKILIC, Sibel AKYOL, Ferit PEKEL, Taner TANRIVERDI, Murat HANCI, Mois BAHAR

347

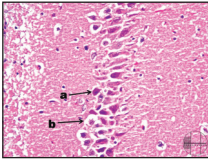
Computed Tomography Findings in Cerebral Hydatid Disease

Serebral Hidatik Hastalığında Bilgisayarlı Tomografi Bulguları

Nisar A WANI, Tasleem L KOUSAR, Tariq GOJWARI, Irfan ROBBANI, Manjeet SINGH, Altaf RAMZAN, Qayum KHAN, Altaf KIRMANI, Afzal WANI



352



Neuroprotective Effect of Memantine on Hippocampal Neurons in Infantile Rat Hydrocephalus

İnfant Sıçanda Oluşturulan Hidrosefalide Memantin Uygulanmasının Hipokampal Nöronlar Üzerindeki Koruyucu Etkisi

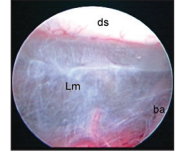
Burak CABUK, Volkan ETUS, Suheyla UYAR BOZKURT, Aydın SAV, Savas CEYLAN

359

Ultrastructural Changes in the Liliequist Membrane in the Hydrocephalic Process and Its Implications for the Endoscopic Third Ventriculostomy Procedure

Hidrosefalik Süreçte Liliequist Membranı Yapısının Ultrastrüktürel Değişiklikleri ve Endoskopik Üçüncü Ventrikülostomi Prosedürü Açısından Önemi

Volkan ETUS, Seyhun SOLAKOGLU, Savas CEYLAN



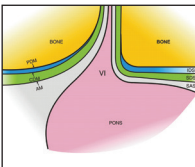
367

Neuroprotective Effect of ACE Inhibitors in Glutamate - Induced Neurotoxicity: Rat Neuron Culture Study

Glutamatın İndüklediği Nörotoksisitede ACE İnhibitörlerinin Nöroprotektif Etkisi: Sıçan Nöron Kültürü Çalışması

Goksin SENGUL, Suleyman COSKUN, Murteza CAKIR, Mustafa Kemal COBAN, Fatih SARUHAN, Ahmet HACIMUFTUOGLU

372



Subarachnoid, Subdural and Interdural Spaces at the Clival Region: An Anatomical Study

Klival Bölgede Subaraknoid, Subdural ve Interdural Mesafeler: Anatomik Çalışma

Giyas AYBERK, Mehmet Faik OZVEREN, Sevil ASLAN, Mesut Emre YAMAN, Onur YAMAN, Selim KAYACI, Ibrahim TEKDEMİR

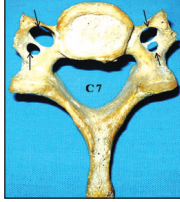
378

A Morphometric Study of Foramen Ovale*Foramen Ovalenin Morfometrik Bir Araştırması*

M.S. SOMESH, H.B. SRIDEVI, Latha V. PRABHU, M.S. Gangadhara SWAMY, Ashwin KRISHNAMURTHY, B.V. MURLIMANJU, Ganesh Kumar CHETTIAR



384

**Accessory Transverse Foramina in the Cervical Spine: Incidence, Embryological Basis, Morphology and Surgical Importance***Servikal Omurgada Aksesuar Transvers Foramen: İnsidansı, Embriyolojik Temeli, Morfoloji ve Cerrahi Önemi*

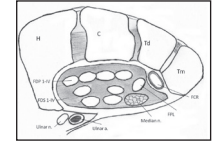
B.V. MURLIMANJU, Latha V. PRABHU, K. SHILPA, Rajalakshmi RAI, K.V.N. DHANANJAYA, P.J. JIJI

REVIEW

388

Anatomic Variations of the Median Nerve in the Carpal Tunnel: A Brief Review of the Literature*Median Sinirin Karpal Tüneldeki Anatomik Varyasyonları: Literatürün Kısa Bir Derlemesi*

Emre DEMIRCAI, Erdinc CIVELEK, Tufan CANSEVER, Serdar KABATAS, Cem YILMAZ



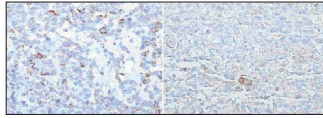
397

Comparison of Simultaneous Shunting to Delayed Shunting in Infants with Myelomeningocele in Terms of Shunt Infection Rate*Şant İnfeksiyon Oranı Açısından Myelomengoselli İnfantlarda Aynı Seansda Şantlamanın Geç Dönem Şantlamayla Karşılaştırılması*

Mehmet ARSLAN, Metehan ESEOGLU, Burhan Oral GUDU, Ismail DEMİR, Abdalbaki KOZAN, Abdulsemat GOKALP, Enver SOSUNCU, Nejmi KIYMAZ

CASE REPORT

403

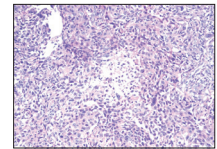
**Thyrotropin Secreting Pituitary Adenoma Accompanying a Silent Somatotropinoma***Tirotropin Sekrete Eden Pituitier Adenoma Eşlik Eden Sessiz Somatotropinoma*

Dilek BERKER, Serhat ISIK, Yusuf AYDIN, Yasemin TUTUNCU, Gokhan AKDEMİR, Hatice NURSUN OZCAN, Serdar GULER

408

Spinal Metastasis of Occult Lung Carcinoma Causing Cauda Equine Syndrome with Lumbar Spinal Stenosis*Lomber Dar Kanal Zemininde Kauda Equina Sendromuna Sebep Olan Akciğer Karsinomu Metastazi*

Tufan CANSEVER, Serdar KABATAS, Erdinc CIVELEK, Cem YILMAZ, Hakan CANER



413



Scissors in Brain: An Unusual Presentation of Tribal Culture in India

Beyinde Makas: Hindistan`da Kabile Kültürünün Alışılmadık Bir Sunumu

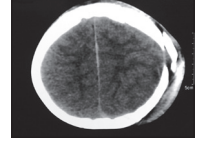
Apoorva KUMAR, Rajendra PANDEY, Kulwant SINGH, Vivek SHARMA

418

Elevated Skull Fractures in Pediatric Age Group: Report of Two Cases

Pediyatrik Yaş Grubunda Kalkmış Kafatası Kırıkları: İki Olgunun Sunumu

Sarabjit Singh CHHIBER, Mohd Afzal WANI, Altaf Rehman KIRMANI, Altaf Umar RAMZAN, Nayil Khursheed MALIK, Abrar Ahmad WANI, Abdul Rashid BHAT, Anil DHAR, Basharat KANTH



421



Bilateral Pneumothorax During Subdural-Peritoneal Shunting

Subdural-Peritoneal Şant Takılması Sırasında Gelişen Bilateral Pnömotoraks

Ilker SOLMAZ, Ozkan TEHLI, Serdar KAYA, Ersin ERDOGAN, Yusuf IZCI

423

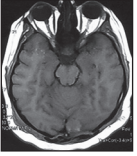
Avulsion Fracture of the Anterior Iliac Crest after Bone Graft Harvest: Case Report and Review of Techniques, Risk Factors and Treatment

Kemik Greft Alınmasını Takiben Anterior İliak Kıyı Kopma Kırığı: Olgu Sunumu ve Tekniklerin, Risk Faktörlerinin ve Tedavinin Gözden Geçirilmesi

Aysegul OZDEMIR OVALIOGLU, Cumhuri KILINCER, Talat Cem OVALIOGLU, Osman SIMSEK



427



Cerebral Tuberculoma Mimicking High Grade Glioma

Yüksek Gradeli Gliyal Tümöre Benzeyen Serebral Tüberküloz

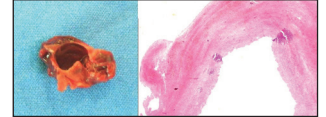
Hikmet TURAN SUSLU, Mustafa BOZBUGA, Cicek BAYINDIR

430

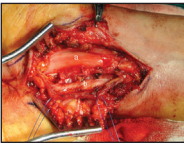
Pseudoaneurysm of the Superficial Temporal Artery Following Revision of a Middle Cerebral Artery Aneurysm Clipping: Case Report and Review of the Literature

Orta Serebral Arter Anevrizma Kliplenmesi Revizyonundan Sonra Oluşan Yüzeysel Temporal Arter Yalancı Anevrizması: Olgu Sunumu ve Literatürün Gözden Geçirilmesi

Tayfun HAKAN, Mehmet ERSAHIN, Hakan SOMAY, Fugen AKER



435



Ulnar Nerve Entrapment in Guyon's Canal Due to Recurrent Carpal Tunnel Syndrome: Case Report

Rekürren Karpal Tünel Sendromuna Bağlı Guyon Kanalı Ulnar Sinir Tuzaklanması: Olgu Sunumu

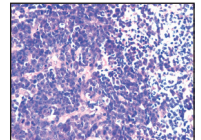
Ozgun OZDEMIR, Tarkan CALISANELLER, Salih GULSEN, Hakan CANER

438

Myogenic and Melanotic Differentiated Medulloblastoma: Case Report

Miyojenik ve Melanotik Differansiyasyonlar İçeren Medulloblastoma: Olgu Sunumu

Alp Ozgun BORCEK, Emre DURDAG, Hakan EMMEZ, Gokhan KURT, M. Kemali BAYKANER



443



Polytetrafluoroethylene Sponge Syringosubarachnoid Shunt

Politetrafloroetilen Spanç Sirengosubaraknoid Şant

Aadil S CHAGLA, Ritesh KANSAL, Balasubramaniam SRIKANT

446

Posterolateral Extrusion of C7-D1 Intervertebral Disc Associated with Intradiscal Hematoma

İntradiskal Hematomla İlişkili C7-D1 İntervertebral Disk Posterolateral Ekstrüzyonu

Vijay JOSHI, Dattatraya MUZUMDAR, Amit MAHORE, Atul GOEL

