

# Abstracts of the 4<sup>th</sup> Yemeni Neurosurgery Scientific Conference

## Trigeminal Neuralgia MVD: surgical Management & follow-up of 400 cases

Professor. Abdullah Al-Asta

Dr. Abdullah AL-Saidy

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**Objective:** The purpose of this study was to evaluate the short term, as well as the long term efficacy of micro vascular decompression for the vascular causes of trigeminal neuralgia. The study included only these cases in which vascular compression or contact was identified during the procedure. The MVD was considered successful when the trigeminal nerve was freed and decompressed without any injury to It, as well as, to its rootlets or any other complications in the procedure. The 54 cases which were compressed through the mass, as well as the 40 cases which were caused idiopathic ally were excluded in this study.

**Methods:** The study was conducted between 2006 and 2017 and included 324 patients by which 129 of them were male (39.8%) and 195 were female (60.2%). According to its site, 175 of them were in the RT side (54%), 144 of them were in the LT side (44.4%), and 5 of them were bilateral (0.06%). The patients were followed up over a period of 5 to 16 years where only 4 patients had recurrent pain and the successful rate - pain free patients without using any medications - was 98.8 %.

**Results:** From the study, it looks that the age, side of pain, duration of pain, used medications especially Tigerton of high dose, and systemic illness such as hypertension and diabetes mellitus did not play any role in the outcome .In our study, we used a piece of muscle to separate trigeminal nerve from compressing or contacting vessels .We never used Teflon .The using of a piece of muscle rather than using Teflon did not show any changes in the outcome of our study.

**Conclusion:** In clear findings of a single or multiple vascular compression or contact on trigeminal nerve with a perfect performance of micro vascular decompression procedure and freeing the nerve even from arachnoid adhesions without distorting or injury of trigeminal nerve from its origin in the brainstem till its exit root entry zone will give a very excellent successful result reaching up to 98%.

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## The impact of Neuronavigation in skull base surgeries

Dr. Abdulghani Nasher

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**Objective:** The treatment of skull base tumors has evolved from observation to partial resection combined with other therapy modalities, to gross total resection and no adjuvant treatment with good surgical results and excellent clinical outcomes. Nonetheless, despite the recent technological advances, the risks associated with skull base surgeries remain not negligible. This study aimed to evaluate the impact of using neuronavigation on the surgical outcomes of patients with skull base tumors.

**Methods:** We analyzed 42 consecutive patients who underwent skull base surgeries between January 2019 and April 2022. The impact of neuronavigation was assessed on the following parameters: craniotomy size, surgical duration, postoperative CSF leakage and other complications occurrence and length of hospitalization.

**Results:** The craniotomy size, the surgical duration and the CSF leak incidence were significantly achieved. The length of hospitalization was reduced, although these differences were not statistically significant.

**Conclusions :**Neuronavigation is a useful tool that significantly reduced morbidity rates, less invasive procedures, shorter hospital stay, lower hospital costs, and reduced requirements for postoperative analgesia also reduced craniotomy size, surgical duration and CSF leak incidence in skull base surgeries. We advise to routinely implementing neuronavigation in this type of surgery.

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## The Mechanism of Cisternostomy

Dr. Yonghong Wang - China

The extracellular space( ECS)in the brain is between 15% and 25%. Substances can enter this ECS from subarachnoid or ventricular cerebrospinal fluid (CSF) and move unrestricted within these small intercellular channels.

In cacogenic brain edema associated with brain injury, pressure gradients develop across the tissue and are the driving forces for the spreading of edema fluid. The existence of a high interstitial fluid pressure (IFP) within the edema territory as compared to the pressure in the

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CSF and normal brain tissue. It seems that the rising IFP initiates the dilatation of the ECS. These dilated spaces may provide a pathway for the movement of edema fluid. It can be concluded that the entry of the edema fluid into the CSF is one of the main mechanisms of the resolution of cacogenic brain edema. If the clearance of edema fluid into the CSF is related to the hydrostatic pressure gradient between the IFP in the edematous tissue and the CSF pressure (CSFP), then changes in the CSFP can directly affect the amount and velocity of this clearance. Thus, a decrease in the CSFP would enhance the clearance of edema fluid by increasing this pressure gradient and a rise of the CSFP would probably have the opposite effect. It has been suggested that in a normal brain the interstitial fluid is produced probably at the capillary-glia complex, and flows along pathways of low resistance (perivascular spaces) into the CSF. perivascular spaces may serve as channels for fluid exchange between the brain and CSF. Brain edema is absorbed into Para vascular CSF rather than blood. Current treatments like hypertonic saline, mannitol, or decompressive craniotomy, while effective at reducing intracranial hypertension, have an unclear impact on the outcome, highlighting the elusive but essential balance of adaptive versus pathologic swelling.

The future of cerebral edema treatment after TBI may require pathophysiology-based targeted treatments--increasing the clearance of the edema fluid at the tissue-ventricular CSF interface. The paradigm shift has begun---Basal Cisternae Drainage. Basal Cisternae Drainage not only reduce brain edema but ICP.

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### **Understanding crani vertebral junction pathologies and screw placement techniques**

[Dr. Asheesh Tandon](#)

[Advance Neurosurgery Brain & Spine Center](#)

[Aditya Super Specialty Hospital Jabalpur, India](#)

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No abstract available.

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### **Use of Coblation in Management of Nasal Meningocele**

[Dr. Abdulwasa Alaqel](#)

[ENT consultant. Yemen](#)

[Founder and Head of Abdulwasa Alaqel specialized hospital Sana](#)

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Use of coblation in the management of nasal meningoencephalocele is of great value. It offers the surgeon a great facility. Classically bipolar diathermy is used to excise the meningoencephalocele where 4 hands are necessary. Use of coblation reduces the need to a 2 hands one for camera holding and another hand for ablation, suction, irrigation and coagulation at the same time which makes surgery easier and faster.

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### **Petroclival Meningiomas, personal experience.**

[Prof. Ibrahim Sbeih, MBCHB., FRCS., FRCSSN.](#)

F.R.C.S. (Fellow Royal College of Surgeons) – Glasgow, UK, 1984.

F.R.C.S.S.N. (Fellow Royal College of Surgeons - Surgical Neurology) – Edinburgh, UK, 1985. Distinction: Gold Medal.

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**Introduction** : Petroclival Meningiomas which constitute 5% of all intracranial meningioma, are difficult lesions to treat.

**Methods**: I operated upon 88 cases of petroclival meningiomas in the period between 1990 and 2020. Seven patients were lost for follow up. We are presenting our experience with 69 cases (average age 43 years) which were followed up for a period ranging from 26 176 months. There were 48 females and 21 males. None of our patients had previous surgeries for their meningiomas.

**Results** : The main presenting manifestations were cranial nerve involvement, with abducent nerve deficits being the commonest. Other presentations included ataxia, hemiparesis, quadriparesis and features of raised intracranial pressure. Radiological diagnosis rested on the use of brain MRI, MRA, MRV and thin slice C-T scan of petrous bone and clivus. Surgical approaches utilized were retrosigmoid in 40 patients, petrosal in 9 patients and combined approaches in 5 patients. We achieved gross total resection in 38 patients and subtotal resection in 16 patients. Recurrence occurred in all 13 patients who had subtotal resection, and in 7 patients who had a gross total resection. After a period of observation, Gamma radiosurgery was used in 11 patients, using 12 – 15 gray to 50% isodose. Tumor control was achieved in 9 patients. Surgical results were poor outcome in 4 patients, the fair outcome in 10 patients and good outcome in 40 patients. Complications included new cranial nerve deficits in 15 patients, pyramidal weakness, CSF fistula and hydrocephalus. Mortality occurred in 2 patients.

**Conclusion**: Petroclival Meningiomas are formidable lesions

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to treat. Factors influencing surgical outcome include neurovascular relationship, bony invasion, and multiple intracranial compartment involvement, among other factors. Every effort should be done to achieve gross radical excision. However, this is not possible in some cases. For such residual tumors, Gamma radiosurgery should be used, after a period of observation.

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### Post Neurosurgical Meningitis Among Vp Shunt And Evd Patients Operated In Althawra Hospital From Jun 2021 to Dec 2021

[Dr. Nikolay Peev, MD, PhD \(Neurosurgery\), FRCS\(England\)](#)

Current: Consultant Neurosurgeon and Spinal Surgeon

Belfast Health and Social Care Trust

Belfast, Northern Ireland

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No abstract available.

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### Case Study

[Dr. Mujahed Mesar, and Dr.Esmail Mansour AL-Hoothy](#)

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**Introduction:** Spinal cord injury (SCI) remains the most devastating injury for patients and spine surgeons alike. Despite several basic science and clinical advances in the study of cord injury. Spinal cord injury is still one of the commonest causes of disability. Estimates of the number of patients living with a spinal cord injury in the United States alone range from 185,000 to 400,000. Approximately 2000 U.S. hospital beds are required each year for the care of these patients. According to Kraus and colleagues, of the approximately 14,000 people who sustain spinal cord injuries each year, 4200 die before reaching the hospital and an additional 1500 patients die during the initial hospitalization.

**Assessment of spinal instability:** Spinal stability can be assessed radiological using the column model of spinal stability, in which the vertebrae is divided into an anterior (anteriorlongitudinal ligament, annulus fibrosis, and anterior vertebral body), middle (posterior vertebral body, annulus, and posterior longitudinal ligament), and posterior column (all osseous and ligamentous structures posterior to the posterior longitudinal ligament), in which involvement of one columnist not enough to cause instability and involvement of two or more column can cause instability. Degree of neurological deficit can be assessed using the

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American Spinal Injury Association (ASIA) impairment score, which divided neurological deficit post spinal cord injury into A, B, C, D, E.

**Aim of study:** The main aim of this research is to study the postoperative outcome (ASIA impairment score) and to study the prevalence of the complications (site of operation hematoma, local wound infection, CSF leak, chest infection or pulmonary embolism) among the patients who undergone spinal laminectomy and spinal instrumentation with fusion post spinal cord injury.

**Methods:** Data was collected to designed questioner, from the files of all patients (50) who sustained spinal cord injury and undergone spinal laminectomy and spinal instrumentation with fusion at Al-Thawara Modern General Hospital, during the period 1st January 2017 – 30th December 2017. 9 cases were excluded due to incomplete recorded data in their files.

**Results:** The most common age group of patients (48.8%) was 1030- years old, 90% of patient was exposed to blunt trauma, and only about 10% has a penetrating injury. 44% presented with ASIA B, 37% ASIA A. 72% of patients undergone early (13-days) surgical intervention. 46% have no post operative complications, 20% have CSF leak and 17% have chest infections. Only one case of ASIA A patient improved to ASIA B post operation, while 50% of ASIA B patient improved to ASIA C post operation. Post-operative chest infection significantly increases hospitalization period in about 55% of patient from 12 weeks to 34- weeks, and about 16% to > 1months), and pulmonary embolism increase hospitalization of half of them 34-weeks, and the other half > 1month.

**Discussion:** The age group which mostly exposed to spinal cord injury and sustained spinal laminectomy and instrumentation with fusion were mostly 1030 years which is like another literatures. The most prevalent post operative complication was CSF leak 20%, in comparison to other studies in which the incidence of durotomy during spinal cord surgery was 8.5% in the case of spinal stenosis surgery, and 13.2% in the case of revision lumbar surgery. This controversy between our results and the results of this literature may be, in our literature, study concern about the traumatic spinal injury in which sometimes the dura was opened already due to the trauma itself, and sometimes due to the complexity of trauma and difficulty of repair of dura tear due to its location, the CSF leak occurs post operation, while in the other literature they study the elective cases which is no associated with.

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**Evaluation of the clinical Electrophysiology in Traumatic peripheral nerve injuries.**

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Dr. Wissam Al-Jabali

## **Abstract:**

The Peripheral nerve injuries are a common problem lead to a decreased quality of life. And pose a risk national economic costs. Treatment of peripheral nerve injuries is a complex and depends on location, severity, and type of nerve injury. **In this article** we are review how can the clinical Electrophysiological uses for diagnostic and enhancement recovery after TPNI. The Electro diagnostic studies are useful in diagnosis TPNI, it can be provide the Neurosurgeons with important clinical parameters about TPNI regarding the location, severity and nature of a nerve injury and also useful in predicting and assessing improvement during treatment either conservatively or surgically. also review the evidence of use Electrotherapy for enhance nerve regeneration and improving peripheral nerve functions, and the Electrotherapeutic methods, protocols, and strategy currently used for initiation and support of peripheral nerve regeneration after injuries and improving functional recovery delayed nerve injury after treatment with surgically or conservatively

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## **Minimal invasive neurosurgery**

Dr. adel alkuribi

The Minimal invasive neurosurgery it aims to a less of damage in normal structure to foster health recovery by using the advanced medical approachs and technology.

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## **New Technologies in Neurosurgery**

Dr. Iype Cherian .MD

Director Neuroscience, Krishna Institute of Medical Sciences, Karad India

## **Summary:**

Medical technology and equipment are constantly changing are improving with time and we had to keep up with these changes and advancement in order to get the best of it, I will be talking on exoscope and it role in Neurosurgery , endoscope, Robotic endoscopic holder and other new innovative products in Neurosurgery.

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## **Role of endoscope in Intra ventricular Brain Tumers**

Dr. Abhidha SHAH

Assistant Professor in Neurosurgery at Seth G S Medical College and KEM Hospital

(Mumbai)

No abstract available.

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### **Brain tumors (Glioma): Do a lot with little**

Dr. Paulo Abdo do Seixo Kadri

Chairman of Skull Base Department – Brazilian Neurosurgical Society (SBN)- 2010-2012

No abstract available.

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### **Arachnoid membrane in skull base surgery**

Vladimír Beneš Jr.MD,PhD.

Professor and Chair, Prague

No abstract available

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### **Brain tumors (Meningeoma) Do a lot with little**

Dr. Osama AL-Mefty .MD

Harvard Medical School Neurosurgery

No abstract available.

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### **What The Eye Can Tell You About Brain Disease**

Dr Tareik Aldoais

Ophthalmic consultant Rowad Alnour Eye Center

#### **Summary:**

The human eye shares several vascular and neural similarities to the brain, and hence, our eyes have been found to offer a direct window to brain pathology. The optic nerve from each eye carries impulses to the brain, where visual information is interpreted. Damage to an optic nerve or damage to its pathways to the brain results in loss of vision. At structure in the brain called the optic chiasm, each optic nerve splits, and half of its fibers cross over to the other side. Because of this anatomic arrangement, damage along the optic nerve pathway causes specific patterns of vision loss. By understanding the pattern of vision loss, a doctor can often determine where the problem is in the pathway.

Strabismus or misalignment of the eyes can be caused by palsies or weakness of certain cranial nerves (CN). There are 12 specialized cranial nerves that course through the brain and control various functions and sensations of the head and neck. Four of these nerves are involved with eye and eyelid movements: CN III (3rd), CN IV (4th), CN VI (6th), and CN VII (7th).

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### **Clipping techniques and other management options for Giant Brain aneurysms**

Dr. Michael Lawton

Barrow Neurological Institute and the Chair of the Department of Neurosurgery. Phoenix  
Arizona USA

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No abstract available

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### **Role of endoscope in Intra ventricular Brain Tumors**

Dr. yahya alsiahi

professor of plastic and maxillofacial surgery althorah modern general hospital, general  
military hospital

Dr basheer othman

Ass prof of plastic and reconstructive surgery althorah modern general hospital, general  
military hospital

Radial nerve injury is considered one of the most debilitating injury affecting function in the hand because of impairment of wrist; fingers; and thumb extension and the loss of the grasp of the hand . These injuries are not uncommon in our society resulting in poor quality of living, dependency & loss of livelihood. Multiple varieties of treatments are available either surgically repaired or conservatively. Each consists of the patient wearing a brace (External splint) and undergoing rehabilitation. The aim of rehabilitation is to maintain the passive motion of various joints and to limit the risk of adhesions. Tendon transfers are also an alternative method, and it has been used for over a century to restore function after radial nerve injury or paralysis with good results. Innumeros early partial Tendon transference can be used in conjunction with early radial nerve repair or conservative management to decrease the complications and improve the rehabilitation program what is called as intrinsic splint, Late or complete tendon transfers have been described to treat. Chronic radial nerve palsy, and all have their advocates who have shown commendable results.

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### **Percutaneous Endoscopic Interlaminar Lumbar Discectomy as a versatile approach**

Dr. Omar Y Hammad, PHD, MD

professor of Neurosurgery at Ain Shams University,

#### **Abstract**

**Introduction:** Petroclival Meningiomas which constitute 5% of all intracranial meningioma, are difficult lesions to treat.

**Methods :** I operated upon 88 cases of petroclival meningiomas in the period between 1990 2020. Seven patients were lost for follow up. We are presenting our experience with 69 cases (average age 43 years) which were followed up for a period ranging from 26 176 months. There were 48 females, and 21 males. None of our patients had previous surgeries for their meningiomas.

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**Conclusion:** Petroclival Meningiomas are formidable lesions to treat. Factors influencing surgical outcome include neurovascular relationship, bony invasion, multiple intracranial compartment involvement, among other factors. Every effort should be done to achieve gross radical excision. However, this is not possible in some cases. For such residual tumors, Gamma radiosurgery should be used, after a period of observation.

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## **Abstracts of the 4<sup>th</sup> Yemeni Neurosurgery Scientific Conference**

### **The role of orthopedic surgery in management of children with cerebral palsy**

[Dr. Salah Salah Sailan Obaid, Orthopedic neurosurgery consultant](#)

[Dr. Mohammed Dhaif Allah, Orthopedic neurosurgery consultant](#)

#### **Abstract**

Orthopedic surgery (OS) plays an important role in the management of cerebral palsy (CP). The aims of OS are to improve functions, correct and prevent bony and joints deformities. The OS related treatment for CP are non- surgical, and surgical options include bony and soft tissue procedures and single-event multilevel level Surger/SEMLS, which have led to significant improvements in gross motor function and ambulation, especially in spastic quadriplegia, athetosis, and dystonia. The effort OS are direct to facilitate independence, maintain activities of daily living. The results of OS can be dramatic and life altering for the children with CP and their families if it is performed by a specialized surgical team, at the appropriate age, for the correct indications, employing multidisciplinary team model, institutional rehabilitation, and long term followup. However, OS can be a double-edged sword, and if performed less than optimally, and without the supporting multidisciplinary and rehabilitation team, it often leads to significant functional worsening of the child with CP, including loss of previous ambulatory ability. OS must be integrated into the long term management of the child with CP and should planned at the optimal time and not viewed as a “last resort” intervention or failure of rehabilitation. This lecture review the relevant managment principles and techniques of OS in CP. Keywords: Cerebral palsy, orthopedic surgery, single event multilevel surgery.

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### **Role of intra-operative Ultrasonography in resection of intrinsic brain tumors**

[Dr. Aly Ibrahim Soliman, MD, PhD](#)

[Assistant Professor of Neurosurgery, Ain Shams University](#)

No abstract available

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### **The Impact and Significance of Microneurosurgery**

[Prof. M. Gazi Yaşargil MD](#)

No abstract available

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## Cervical Myelopathy: Management Approaches

Dr J.K.B.C.PARTHIBAN, India

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## How Simple tailored approach triumphs complex one in Skull-Base surgery

Dr. Imad N. Kanaan .MD

Department of Neurosciences at King Faisal Specialist Hospital and Research Center Riyadh, Saudi Arabia

No abstract available

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## Future of Ropotic Spine Surgery

Prof. Dr. Salman Sharif

Head of Nerosurgery Liaquat medical school – Karachi Pakistan

No abstract available

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## Trans nasal & trans Otic approaches to petrous bone

Dr. Vinod Felix, MD, India

**Summary:** Petrous apex lesions can often be challenging to approach, as they are deep seated and due to the close proximity of critical neurovascular structures. In spite of that many of these lesions can be tackled by the conventional petrosectomy approaches. This lecture aims to orient the audience about alternative approaches to petrous apex ,ie transnasal and transcochlear approach ; which may be a better alternative in a few of these lesions.

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## Outcome of operative correction of thoracolumbar junction fracture in patients admitted at 48 model hospital during 2019-2021 - Sana'a Yemen

Dr. Noofel Ali Al-Ashhab, M.D,

**Definition:** The thoracolumbar junction is the most common area of injury to the axial skeleton. A wide variety of injury patterns and clinical presentation is encountered in the region, Since the spinal cord ends in the region, neurological injuries can result in either a cord or a cauda

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equine lesion, which vary in their prognoses . Significant controversy exists regarding intervention for these fractures.

**Objectives** : To know the distribution of the thoracolumbar junction spine fracture according to age, gender, mechanism of injury, type of the fracture, neurological deficit .also reviews the general principles of evaluation and treatment of thoracolumbar fracture and To assess outcomes for surgery management of thoracolumbar junction spinal fractures also To know the outcome of operative correction of thoracolumbar spine junction fracture according to kyphotic angle and vertebral body height by posterior spinal fixation

**Methodology and Material:** A hospital based, descriptive Prospective study. 45patient come to 48 model hospitals with traumatic TLSF all of them underwent for surgical treatment over a period of 2 years from 2019 to 2021 . My database collected from patient whose underwent surgical operations by the questionnaire the Surgical Treatment was done and Early follow up and evaluation By post- operative check x-ray was done Our outcomes are based on radiographic measurements kyphotic angle , anterior vertebral body height . The Statistical program For social science (SPSS) has been used .

**Result** : A total of 216 patients with TLSF my study follow 45 them were operated by posterior spinal fixation .Fractures and fracture dislocations accounts 50% of all vertebral fractures and 40% of spinal cord injuries the peak age was between (1630-) years , represent ( 44,4%) .the dominant gender was the male with percent (68,9%) . And the most reason was RTA (73.33) Regarding to level the TL J was the most common region of thoracolumbar spinal fracture (T11-L1) (53,3%) . Regarding to the Denis classification system the predominant type fracture was compression fractures with percentage of (48,9%) . we found that ( 28,9%) of them had partial deficit , (20%) had complete neurological deficit and (51,1%) neurological intact , about 48% of patients presented with kyphotic deformity between 10-20 degrees. The mean kyphoticsed deformity was (20.4) degrees preoperatively and decreased to (4.6) degree in immediate postoperative period, corrected by (15.8) degrees and (77.5%) The percentage loss of anterior vertebral body height was (53%) compared to the lower normal vertebra preoperatively decreased to (10.3%) on immediate post-operative period . The mean difference of anterior vertebral body height was (42,87%)

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### High grade Glioma management and contraversies (state of the art)

Dr.

Edres

Noman

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Head of neurosurgery dept.Saudi germen hospital Sana a  
To Study The Rate of High Grade Glioma ,Non \_ Enhancing Lesions (High Grade Glioma  
(Sate of the Art)

**Purpose:** Although non-enhancing lesions suspicious for glioma are usually assumed to be low grade glioma (LGG), some high-grade glioma (HGG) do not enhance, which may lead to a delay in biopsy and/or resection, diagnosis, and treatment initiation. Thus, there is a clear need for a largesample study that quantifies the rate of malignant, non-enhancing gliomas.

**Methods:** We retrospectively reviewed our series of 231 consecutive surgically treated gliomas with tissue diagnosis, 56 of which were non-enhancing, to determine the prevalence of high-grade histology in radiographically presumed LGG.

**Results:** We identified 231 surgically treated gliomas with tissue diagnosis from August 2012 to January 2022 and found that 56 patients (24%) demonstrated non-enhancing lesions suspicious for glioma on preoperative MRI. A sixteen patients (28%) of the non-enhancing lesions were classified as HGGs (WHO Grade III or IV). Non-enhancing lesions were four times more likely to be HGG in patients older than 60 years than patients younger than 35 years (41.2% vs. 11.4% Conclusion: A clinically significant proportion (28%) of non-enhancing lesions were found to be HGG on final pathologic diagnosis. Thus, in patients with good functional and health status, especially those older than 60 years, we recommend obtaining tissue diagnosis of all lesions suspected to be glioma, even those that are non-enhancing, to guide diagnosis as well as early initiation of chemotherapy and radiation therapy.

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### Vascular Anatomy of Lumbo Sacral spinal cord segmen and its Surgical implications

Dr. Victor Hugo Perez. MD

Neurosurgeon, Neuroanatomist, Neurosurgeon Hospital Anglo Metropolitan, Mexico City, Mexico

No abstract available

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### Role of endoscope in Intra ventricular Brain Tumers

Dr. Henry W.S. Schroeder .MD

Department of Neurosurgery at the University Medicine in Greifswald, Germany

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No abstract available

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### Defining surgical strategy in skull base tumors

Dr. Atul Goel .MD

Department of Neurosurgery, King Edward Memorial Hospital and Seth G.S. Medical College, Parel, Mumbai, India

No abstract available

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### Improving patient outcomes in the treatment for complex vascular lesions

prof. Saleem Abdulrauf, Abdulrauf Institute of Neurosurgery

No abstract available

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### Meningiomas: Current Management

Prof. Luis Borba .MD

Neurosurgery, Federal university of Paraná. Brazil

No abstract available

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### Surgery of S.W.M with Vascular Encasement In Hadhramaut University Al-Borj Hospital

Dr.Khalid Bin Madhi Faculty of medicine, Hadramout university, Yemen

**Background:** Sphenoid Wing Meningioma surgery is one of the challenging surgeries in the field of neurosurgery. This is due to either a vasculature encasement or the tumor invasion to optic canal or cavernous sinus.

**Objective:** This study is developed mainly to assess the possibility of performing total excision of the tumor in order to decrease its compression on the neural structures and decrease brain edema.

**Method:** During period from March 2014 - March 2022; 50 patients of Sphenoid Wing Meningioma underwent to surgery.

**Results:** Headache was the most common presenting complain (60%), followed by convulsions (20%). The least common presenting complains were motor deficit (10%), visual change (4%), and heaviness of speech (6%). The tumor was totally resected in the most cases (90%); and

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only (10%) remanent of the tumor was left in the cavernous sinus and the main vascular structure (ICA). However, these results depend on the surgical strategy of our teachers who are learning it.

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### Post traumatic stress Disorder

Dr. Ahmed AL-Baredah

Consultant Oncologist

To determine the event-free survival (EFS) and overall survival of children with average-risk medulloblastoma and treated with reduced-dose craniospinal radiotherapy (CSRT) and one of two postradiotherapy chemotherapies. Four hundred twenty-one patients between 3 years and 21 years of age with nondisseminated medulloblastoma (MB) were prospectively randomly assigned to treatment with 23.4 Gy of CSRT, 55.8 Gy of posterior fossa RT, plus one of two adjuvant chemotherapy regimens: lomustine (CCNU), cisplatin, and vincristine; or cyclophosphamide, cisplatin, and vincristine.

**Results:** Forty-two of 421 patients enrolled were excluded from analysis. Sixty-six of the remaining 379 patients had incompletely assessable postoperative studies. Five-year EFS and survival for the cohort of 379 patients was 81% +/- 2.1% and 86% +/- 9%, respectively (median follow-up over 5 years). EFS was unaffected by sex, race, age, treatment regimen, brainstem involvement, or excessive anaplasia. EFS was detrimentally affected by neuroradiographic unassessability. Patients with areas of frank dissemination had a 5-year EFS of 36% +/- 15%. Sixty-seven percent of progressions had some component of dissemination. There were seven second malignancies. Infections occurred more frequently on the cyclophosphamide arm and electrolyte abnormalities were more common on the CCNU regimen. This study discloses an encouraging EFS rate for children with nondisseminated MB treated with reduced-dose craniospinal radiation and chemotherapy. Additional, careful, stepwise reductions in CSRT in adequately staged patients may be possible

**Conclusion:** This study discloses an encouraging EFS rate for children with nondisseminated MB treated with reduced-dose craniospinal radiation and chemotherapy. Additional, careful, step-wise reductions in CSRT in adequately staged patients may be possible.

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### Post traumatic stress Disorder

Dr. Enas Hamad – Syria

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**Summary:** Posttraumatic stress disorder is emotions and adaptive behaviors which is understood as the way in which an organism interact with its world to assure its integrity and survival. it is related to a specific event involving actual or threatened death, serious injury, sexual violence. The symptoms should be present for at least one month and have significant functional impact. If symptoms are present less than 1month , the appropriate diagnosis is Acute Stress Disorder The diagnosis and statistical Manual of Mental Disorders, Fifth Edition DSM\_5 , describe four cluster of symptoms:

1-intrusive symptoms.                    2-active avoidance.                    3- Disturbed emotional state.  
4-alteration of arousal and reactivity

**Treatment:** is psychotherapy that is effective in reducing in severity the symptoms and pharmacotherapy

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### **Understanding cranio vertebral junction pathologies and screw placement techniques**

[Dr. Saleh AL-Redae. Consultant  
maxillofacial Surgeon. Yemen](#)

It is known that injuries to the face, jaws and skull are common either from traffic accidents or from war injuries. And when the injuries involve the face and skull it can cause a brain and neurological damage which needs immediate surgical intervention by the neurosurgeon, this situation requires coordination between the neurosurgeon and the maxillofacial surgeon to determine the surgical plan and the importance of the surgical intervention in terms of the face and jaws according to The patient's general condition and the degree of brain damage as a result of the trauma. In this presentation, we will discuss what was previously mentioned regarding the prognosis and outcome with a presentation of clinical cases before and after surgical intervention

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### **Minimal invasive surgery in children.**

[Dr. Ali Mishani MD  
Head Of Omani and Arab Assosiation of Neurological Surgery](#)

No abstract available

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### **Current Practice in Epilipsy surgery**

[Dr. Salah Hamadah  
Faculty of Medicine. Ain Shams University, Egypt](#)

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No abstract available

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### **Journey of Skull base surgery – Personal perspective**

Dr Prakash Kafle (MS/MCh -Neurosurgery)

Department of Neurosurgery - Nobel Medical College Biratnagar, Nepal

No abstract available

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### **Short Term Outcome After Posterior Lumbar Interbody Fusion & Tpf Vs Tpf Alone**

Dr.Mohammed H. Alkhaishani

Consultant Neurosurgeon

#### **ABSTRACT**

**Object:** in this study the aim was to compare outcomes of lumbar interbody fusion (PLIF & open TLIF) with those of TPF with discectomy to determine whether lumbar interbody fusion improves postoperative early functional mobility & decreases the use of postoperative pain medications.

**Methods:** in total 60 consecutive patients who underwent either (lumbar discectomy & TPF) or (PLIF & open TLIF) at Modern AZAL hospital –Sana'a between September -2021 and March -2022 were included and patients were followed for an average of 3 months. N.B. 35 patients underwent discectomy-TPF alone and 25 patients underwent lumbar interbody fusion (7 TLIF & 18 PLIF). Outcomes included administration of pain medications and functional status on postoperative day one and two. Another issue is the bending ability of the patient and the local lower back tenderness after 8 weeks of operation.

**RESULTS:** no statistically significant difference in age, sex, body mass index (BMI), no of disc levels involved were detected between (discectomy & TPF) and Lumbar interbody fusion (PLIF & open TLIF) but surgical indications were different in that the lumbar interbody fusion were with severely degenerated & narrowed disc spaces, some with vacuum phenomena.

**Intraoperatively:** compared with DISCECTOMY-TPF and PLIF –open TLIF resulted in increase in duration of operation by average of 40 minutes, same blood loss, no increase of complications or hospital stay.

Total administration of pain medications in the hospital also tended to be lower in the LIF groups than in the TPF alone group. Functional assessment on postoperative day 1 & 2

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demonstrated higher function in LIP group (ambulatory ability & distance walked) than in TPF alone group ( $p < 0.05$ ).

**CONCLUSION:** the LIF approach achieves improved functional mobility, decreases the usage of post-operative pain medications and greatly improved the bending ability of the patient and decrease low back tenderness in the 2 months after surgery and minimize the post op.

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### Timing of lumbar disc surgery: Key notes

Dr. Nidhal AL-Rosan .MD

No abstract available

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### Spinal Sagittal plane deformity and corrective osteotomies

Dr. Aboubakr Gamal

Consultant and lecturer of neurosurgery, Ain Shams university

No abstract available

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### Clinical and Radiographic Outcomes of Surgery In Spinal Deformity

Dr. ADNAN ABDULLAH AIAWADI

consultant neurosurgeon TMGH. Dr. OMER ABDULLAH SALEH AL-TURKY: senior specialist neurosurgeon TMGH

#### **ABSTRACT**

**STUDY DESIGN:** Retrospective descriptive study.

**OBJECTIVE:** the first study in our country cite the spinal deformity surgeries. The purpose of this study was to determine the overall clinical and radiological outcome and complication rate in surgical treatment of spinal deformity and the relation of the type, severity, segment and degree of correction to complication and outcomes after surgery.

**METHODS:** a retrospective study including all age group patients who had spinal deformity of different causes including congenital spinal deformities, idiopathic scoliosis, adolescent idiopathic scoliosis, neuromuscular disorders, adult spinal deformity and other who underwent surgery mainly in our institution (TMGH – Sana'a) and some patients underwent operation in the private hospital by same team between January 2015 to January 2022, The calculated sample size was (51) patient, (30 females, 21 males). data collection By reviewing operation records of all patients in the study period and identified any case of spinal deformity correction included in the study, then filling the data sheet from the medical file. Each filled data sheet is

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revised by a member of the study team. Data analyses were performed using SPSS version 20

**.RESULTS:** A total of 51 patients of all age population who underwent spinal deformity correction surgery, 44 patents were pediatrics and only 7 patients were adult > 20years old. The mean age at time of surgery was 16.4 years ranged from (867- year) and 59%(n=30) of patients were female. 57% were scoliosis, 33% kyphoscoliosis and Primary deformity was the common 76.5%(n=39) with adolescence idiopathic scoliosis represent 53%(n=27),.The most Common indications for surgical in primary type was cosmetic in 87% followed by neurological deficit in 56% , wail in secondary type 89% of cases neurological deficit was the indication for operation.. The average preoperative scoliosis Cobb angle was 67.2° (range -20° to +120°). The average number of levels fused was 11 (range 516- level ). The average Cobb angle correction was 60% (range 0 % to 100%). The early postoperative complication within 30day were pneumothorax in 10 case (20%) , surgical site infection in 6 cases (12%), CSF leak in 4case (8%) , neurological deficit in 3patients(complete deficit in one patient(2%) incomplete deficit in 2 cases (4%)), other complication were noted in 3 case (6%). The mortality rate were 3 patients (6%)

**CONCLUSIONS:** This study reported that pedicle screws technique is an effective method for treatment of spinal deformity. This study provides insight into the clinical characteristics of spine deformity patients and their post-operative outcomes following deformity correction. Postoperative complications and outcome were closely related to preoperative female gender, primary type deformity, severity of the cobb angle. Identification of these risk factors will help to minimize complication, allowing for optimized care, could be used as an adjunct to clinical judgment in pre surgical planning, risk stratification, and for counseling patients preoperatively and can be used as a reference for future studies.

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### Taumatic Spinal injury During Pregnancy (case Series) and management updates

Dr. Ahmed Saleh AL-Jradi

Senior Specialist Neurosurgeon

#### **Abstract**

**Background:** There is scant literature describing the management of acute spinal injury in pregnant patients. Here, we report our experience with five cases of pregnant patients including three females who suffered acute traumatic spinal cord injuries (SCIs).

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**Methods:** This retrospective study evaluated five pregnant women presenting with traumatic spinal injuries over a 16-month period. All were assessed using the International Standards for Neurological Classification of Spinal Cord Injury Patients and the American Spine Injury Association Impairment Scale (AIS).

**Results:** Three patients sustained SCIs: two cervical spine (C4 AIS-A and C5 AIS-B) and one thoracolumbar junction fracture dislocation (T11 AIS-A). Two patients required surgical stabilization during pregnancy, with one undergoing surgery after delivery. All three patients subsequently delivered healthy newborns. The remaining two patients without neurologic deficits at admission were treated conservatively; one had a healthy child, whereas the other patient aborted the baby due to the initial trauma.

**Conclusions:** Our study demonstrates that the same surgical principals may be applied to pregnant women as to routine patients with SCIs. Further studies with greater patient data should be performed to better develop significant guidelines for the management of pregnant patients with spinal injuries

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### Causes of incomplete Resection of Pituitary Adenoma after Endoscopic Endonasal Trans\_Sphenoid Approach

[Dr. Ammar Ali Al Mekhalfi. MD](#)

**ABSTRACT - Aim:** to identify the causes of incomplete resection of the pituitary adenoma after endoscopic trans-nasal transsphenoidal removal. include the bony work, surgeon experience, size of tumor, cavernous sinus invasion, early descending diaphragma sellae.

**Methodology:** the study was conducted on both operated cases and on-going respectively in the period between March 2017 and August 2018, suffering from pituitary adenoma.

**Results:** fifty patients were included in this study. 31 male, 19 female. The types of tumors among 50 cases were 50% non-functional (25cases), 18% prolactinoma (9cases), 4% Cushing's disease (2cases), 26% growth hormone secreting (13cases) and 2% hypo-function (1case). we have found that 44 cases (88%) were partial resection, 8% of the cases (4cases) were near total resection and 4% of the cases (2cases) were biopsy Complete obtained in 13 cases and in complete resection was in 37 cases Relation between bony work and experience of the surgeon. Experience of surgeon (more than 20 cases), complete resection was obtained in 3cases, while in complete resection was in 2 cases, Experience of surgeon (less than 20 cases), complete resection was obtained in 8cases, while in complete resection was obtained in 37

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cases. Relation between the amount of resection and experience of the surgeon. The amount of resection with surgeon experience was obtained in 5 cases, one of them was biopsy (20%), the other one was partial resection (20%), and the rest of them (3 cases) were near total resection (60%) The amount of resection with surgeon experience less was obtained in 45 cases, one of them was biopsy, the other one was near total resection, and the rest of them (43 cases) were partial resection. The relation between the amount of resection and descending diaphragma sellae was found in 43 cases, in which, 42 cases had partial resection, 1 case was near total resection, with no cases only biopsy. cavernous sinus invasion was found in 9 cases, in which the amount of resection was partial in 7 cases and near total resection in 2 cases and no biopsy The amount of resection with surgeon experience (less than 20 cases) was obtained in 45 cases, one of them was biopsy, the other one was near total resection, and the rest of them (43 cases) were partial resection. Complication of endonasal surgery Loss of vision was found in 2% (1 case), epileptic fits in 2% (1 case), diabetes insipidus in 42% (21 cases), CSF leakage in 12% (6 cases), carotid injury in 2% (1 case).

**Conclusion:** the surgical experience is the cornerstone for surgical resection of pituitary adenomas which were treated by endoscopic trans-nasal trans sphenoidal approach the experience of the surgeon is the most important factor that influences the outcome, in addition to the bony exposure and the diaphragma sellae descending.

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### Spontaneous Intracerebral Haemorrhage Mortality In TMGH-Sana`A Based On Hemphill Et Al Ich Score

Dr. Adnan Abdullah Y. Al-Awadi

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#### ABSTRACT

**BACKGROUND:** Spontaneous non-traumatic intracerebral hemorrhage (ICH) remains a significant cause of mortality and morbidity throughout the world. To improve the devastating course of ICH, various clinical trials for medical and surgical interventions have been conducted in the last 10 years. Recent trials have not been able to demonstrate the overall beneficial effects of surgical intervention on mortality and functional outcomes. However, some patients with ICH may benefit from surgical management in specific clinical contexts and/or at specific times. Upon understanding the current guidelines for the

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management of ICH, clinicians can administer appropriate treatment and attempt to improve the clinical outcome of ICH. The purpose of this study is to help in the decision-making of the medical and surgical management of ICH.

**OBJECTIVES OF THE STUDY** • The effect of surgical intervention on outcome of the spontaneous ICH according to Hemphill ICH- Score. • To evaluate the mortality rate for each group of ICH-score with comparison to Hemphill et al result. • To estimate the overall 30-day mortality. • To identified other risk factors which may affect the outcome of ICH other than specified by Hemphill et al. • To estimate the distribution of ICH in our center according to age, gender, associated with systemic diseases. Based on Hemphill ICH-score.

**STUDY DESIGN & SETTINGS** This is a retrospective study (2017-2021 years) and was conducted in the department of neurosurgery in Al-Thawara Modern general Al-Thawara Hospital (TMGH) – Sana`a over Feb. 2017- Dec.2021.

**METHOD** Data was collected from the files of the patients who were admitted in neurosurgical ICU between the period of Feb. 2017-2021- who admitted in the ICU for both groups of patients who underwent operations (surgical evacuation, EVD) and who treated conservatively.

**RESULTS** The 30-Day mortality rates for patients with ICH-score 4,3,2,1 and 0 were 100.0%, 81.8%, 63.0%, 31.0% and 20.0% respectively, No patients with score 5 and score 6 detected in our study, although this would be expected to be associated with mortality. The mortality rate within operated group was 71%. (In another word, the mortality rate in operated group was about 24% while the mortality rate with the conservative group were 31.2%). 30-Day mortality rate related to the age below 80 years were 54.2 %, And 60% 80 years & above. The overall of mortality rate 54.8%.

**CONCLUSION** The ICH-Score scale provide a standard assessment tool that can be easily and rapidly determined at the time of ICH presentation that will allow consistency in communication and treatment selection in clinical care and clinical research.

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### Outcome Of Decompressive Hemicraniectomy In Traumatic Brain Injury

Dr. Basheer Hussein ALMOAYANA Specialist Neurosurgeon

#### ABSTRACT

**Background & Aim:** Refractory intracranial hypertension (ICP) is the most leading cause of

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poor neurological outcomes in patients with severe traumatic brain injury(TBI). Decompressive craniectomy (DC) has been used in the management of refractory ICP for about a century, and is presently one of the most important methods for its control. The aim of our study was to evaluate the results and effectiveness of DC in the treatment of severe TBI, to identify the Primary and secondary surgical complications, and prognostic factors related to DC.

**Patients and Methods:** This study is a descriptive observational study with cross-sectional analysis of outcome. We investigated 56 patients undergone DC, from 4393 patients (pts) victims of TBI during the period (JULY 2012–MARS 2019)

**Results:** Among 4393 pts with TBI, (penetrating 66 %, closed 34 %), (59.16 %) managed conservatively, (40.84 %) underwent surgical procedure (39.56 % craniotomy& 01.27 % DC). The mean age of those pts was 24 (rang 357-). The peak incidence of injuries was 58.93 % in the age group (1125-years), and were 100 % male. patients suffered various forms of trauma, including gunshot to head, explosion with penetrating foreign bodies to head, RTA, falls, but the most common mechanisms of trauma were Penetrating brain injury (missile, explosion) (66.07%). From those patients 31 (55.36 %) presented with GCS  $\geq$  8/15 at the time of admission, with 50 % presented with largely unilateral dilated fixed pupil. The finding in brain CT scan on admission was consistent with Marshall classification V in 29 pts (51.79 %) Coexisting systemic injuries found in (48.21 %) of pts, the maxillofacial trauma was the most common (44.44 %). 24 pts (42.86 %) of pts, admitted to OT in 612- hours from the accident. The most common neurological complication was epilepsy requiring antiepileptic drugs (41 %), the most common non-neurological complication was prolonged Intubation and need for respiratory support (55.35 %). At the time of discharge from the hospital, 36 pts (64.29 %) had favorable outcome, 14 pts (25 %) had poor outcome, 6 pts dead (10.71 %). After a period of rehabilitation and follow up, the good outcome increased to (69.64 %), by improvement of 03 pts. Those conditions could predict the outcome of surgery, and had significantly worse the outcome, significantly more than other variables, GCS < 8/15, CT scan Marshall IV&V, late admission to the OT, so that higher or very younger age had no influence in the outcome in this study, 4 pts (7.14 %).

### **Conclusion:**

DC is commonly performed as an empiric lifesaving measure in an attempt to protect the brain from the damaging effects of propagating edema and intracranial hypertension. The most common cause of traumatic brain injuries in our country was gunshot and explosion.

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Improving patient selection and early operation may improve functional outcome in severely brain-injured patients.

### A Comparative Study Of Subdural Vs Subperiosteal Drain After Burr Hole Evacuation Of Chronic Subdural Hematoma

Dr. Majed Zaid Abbas

**Study Objective:** To compare the clinical outcomes between using subdural drain (SDDs) and sub periosteal drains (SPDs) after burr hole evacuation for patients who had chronic subdural hematoma. Patients were assigned according to the to the type of drain they received after hematoma evacuation .

**Results** Most cases of the two groups belonged to age group of > 60 years ( 65.2% and 70 % ) of the SDD and SPD group respectively. Male gender was predominant ( 38 of 53) of the two groups with a proportion of male to female as 2.5:1. Most patients illiterates ( 78.2% and 93.3%) of SDD and SPD group respectively. The most common clinical presentation was headache (95.6% and 100%) of the SDD and SPD group respectively followed by gait disturbance (78.2% and 93.3%) . No significant difference between the two groups in relation to patients symptoms (P >0.05). Head injury was the commonest course of subdural hematomas in the SDD group (82.6%) and 100% of the SPD group followed by hypertension as 82.6% and 86.7% of the two groups respectively. Ischemic heart disease and antiplatelet drugs were observed among 60.8% and 52.1% of the SDD group respectively vs 86.7% and 66.7% of the SPD group respectively. There was no significant difference between the two groups regarding the initial Galscow coma scale (P > 0.05).and 18/23 of the SDD group had score between 9 – 13 vs 23/30 of the SPD group. All patients had CT – Scan imaging and the hypodense appearance was the commonest echo pattern seen among 78.2% of the SDD group compared to two thirds (66.7%) of the SPD group. Two cases of each group had shown bilateral hematomas. There was a significant improvement of the functional outcomes measured by Glasgow Coma Scale (GCS), and modified Rankin score (mRS) post drainage which was equally effective among the two types of drains. postoperative complications , we observed a higher rate of bleeding among the SDD group ( 17.3% ) compared to zero of SPD group (P 0.02).Maximum width of the hematomas showed improvement for the two groups but reduced more significantly in the SPD group( P 0.04) . We observed improvement of the maximum shifting (mm) among SPD group but did not reach significant (P 0.63). Misplacement of the drain was significantly detected among SDD group vs none of the SPD group. There was 73.9% recovered , 17.3% deaths and the recurrence rate was 8.7% among the SDD group compared to 93.3% 6.7% and

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zero irrespectively in the SPD group with no significant difference between the two groups ( P 0.10).

**Conclusion** The data derived from this study demonstrate that subdural hematoma is common neurosurgery problem takes place often at older age and affects male more than female . These data indicate that the both drains either SDD or SPD significantly improve the patients outcomes but it appears that SPD drain has a favorable effect on the reducing the rate of post-operative bleeding reducing the maximum width of the hematomas and recurrence rate compared to SDD drain.

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### **The Incidences and prevalence of revision screw in neurosurgical department in TMGH during period from Jan 2015 TO DEC 2020**

[Dr. Balquis Ali Abdualziz Homaid](#)

#### **Abstract:**

**Main objective:** To study the incidence and prevalence of revision screws Patients and methods: All medical files, operative notes, 17 patients who underwent spinal fixation and fusions were underwent revision spinal screws from 2015 to 2020. All patients were operated on by the different surgeon at a single Centre. Statistical analysis was done using the Pearson Chi-square method. Indications were urgent and elective for many other causes are disc, fracture (trauma), stenosis, degenerative, kyphoscoliosis, infection, tumor. The age of the patients at the time of operation was most of them are over 30 years old (12 cases (71%). presentation of patients was divided into categories: 1. Pain 2- postoperative neurapraxias 3. Neurological signs: as drop foot or CSF leak 4- no complain 5- other complain. Malposition was defined as any deviation from the desired position in the Centre of the pedicle on anteroposterior or lateral X-ray views.

**Result:** 418 cases done between 2015-2020- with spinal transpedicular screw implant used with about 2300 screw ,17 cases were re-operated for revision screw (4%), The most common indication for revision screw was Pain (47%), followed by Numbness and Radiological finding with about 23% for each , were neurological deficit represent about 6% .Trauma with spinal fracture was the most common pathological diagnosis seen 41%, followed by Disc prolapse and Kyphoscoliosis with 29% and 12% respectively. The incidence of revision screw generally about 1% of total screw count and 4% to total cases operated, the variation in incidence according to total number for pathological diagnosis and to the total number of screws used with Kyphoscoliosis, infection, degenerative and disc prolapse had incidence of

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15.4%,12.5%,7% and 4.4% respectively according to revision cases to total pathological cases of the same group. In the other hand, the incidence according to number of revised screws to total screw of same pathological group, infection had the highest % of revision screw with 6%, followed by degenerative and Kyphoscoliosis in about 4.4% and 2% respectively. Lumbar vertebra had about 53% of revision screw. Lateral placed screw was found in 70% of cases with revision screw. Male had dominant medial screw position 80%. Neurological deficit was the cause for revision and only seen in Kyphoscoliosis surgery with significant statistic value (P value 0.002) Disc prolapse and Degenerative disease only had Lumbar screw revision, were Kyphoscoliosis and infection had Thoracic screw revision, In Trauma cases 71% had Thoracic screw revision) (p value 0.036). Trauma and disc prolapse were dominant with single screw revision 54% and 38% respectively, more than one screw revision was found in Kyphoscoliosis, Infection and degenerative disease with equal percentage (33%) (p value 0.013). No of screw were with no relation to local revision. Lateral position was the common in all pathological condition. More than one screw revision only seen in elective cases. Thoracic was the common site in urgent cases 70%, in other hand lumbar is common site in elective cases 70%.

**Conclusion:** In conclusion, our study showed that the incidence and prevalence of revision screw, screw placement is at a higher risk of spinal cord injury rate of pedicle screw insertion. Furthermore, Complications of spine surgery may be difficult to diagnose and manage, and it is frequently difficult to identify the causes of persistent or recurrent symptoms on clinical grounds alone, using navigation techniques was superior to those obtained using conventional techniques. Radiography is the standard follow-up imaging method, and it provides a great deal of useful information.

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### Outcomes and Complications of Spinal Tumor Surgery in AL-Thawra General Hospital (2015 - 2021)

[Dr . tareq zaid yahia almahbashi](#)

#### **ABSTRACT**

**Background:** Treatment of spinal cord tumors is still controversial. Surgery is the most commonly used to treat spinal tumors. The aim of surgery is to remove as much of the tumor as possible without damaging the spinal cord or the nerves surrounding the tumor.

**Objective:** This retrospective study aimed to identify the outcomes of spinal cord tumors and assess the outcomes and the incidence of post-op complications, in 37 patients presented to our

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neurosurgical center at in Athawra Modern General Hospital from (Jan-2015 to April-2021).  
Patients and Methods: Between 2015 and 2020, a retrospective study was conducted on 37 consecutive cases of TMGH. The patients were surgically treated and evaluated pre- and postoperatively by ASIA score scale. Appropriate statistical analysis was conducted. Questionnaire was used to collect the data from 37 files.

**Results:** 37 cases were included in this study, the mean age was  $30.19 \pm 18.1$  (median 28 years), 23 males and 14 females. 22 patients were diagnosed within 6 months of neurological presentation and they mostly have motor symptoms, total excision was performed in 27 cases. The majority of the patients (20) had no post-op complication, whereas 7 cases had local infection and wound CSF leak. 21 cases had total or partial neurological improvement whereas 7 cases showed no signs of improvement during the 2 years follow up period. The findings of our study also revealed that 23 patients had no recurrence while discovered tumor recurrence in 5 patients. It was found in our study that there is a significant difference between gender in terms of 2 years follow up period as the p.value 0.018. Also there is a significant difference between age and 2 years follow up period as the p.value 0.007.

**Conclusion:** the treatment of spinal cord tumors aims to reduce the pressure on the spinal cord without damaging the spinal cord or the nerves surrounding the tumor, and therefore improving the symptoms. If treatment cannot completely resect a tumor the patient will benefit from debulking the tumor and removing the pressure on the spinal cord and prevent worsening the symptoms. Surgery is to remove as much of the tumor. In some cases it also reduces the risk of the tumor recurrence. Keywords: Spinal Tumor Surgery ,extradural, intradural, intramedullary Tumors, Athawra General Hospital, Yemen.

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### A Prospective Study of Compound Depressed Skull Fractures Overlying Dural Venous Sinuses and Its Surgical Outcome

[Dr. Zuhair Faisal Saleh Abu Ghareb](#)

#### **ABSTRACT**

**Background:** Depressed skull fracture overlying venous sinuses deserves special attention among skull fractures. It put high demand on every neurosurgeon, as the management of this kind of trauma carry high risk of mortality. It is considered as one of the most dangerous complications of head injuries. Either it is due to fatal venous bleeding during the perioperative period, or disturbing the intracranial pressure via thrombosis or stenosis if treating these cases

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conservatively. Therefore, knowledge of appropriate treatment of this kind of head injury is essential. Moreover, it should always be treated with high cautions.

**Objectives:** To study the clinical profile and surgical outcome of patients with depressed skull bone fractures over dural venous sinus.

**Materials and Methods:** Over a period of four years from February 2018 to January 2022, A prospective cohort case series study was conducted in forty-three patients presented with traumatic compound depressed skull fractures overlying major dural venous sinuses and managed surgically. Patients demographics, Mode of injury, clinical presentation, site and side of depressed skull fracture were noted. X-skull and CT scan brain was done in all cases to confirm the diagnosis and to see the underlying brain injury. MR venography was done in some cases to assess sinus patency.

**Results:** There were 41 males and 2 females. most affected ages were among School going children and teenage groups (55%). The common cause of depressed fracture was assault (51%) and roadtraffic accident (42%); the mean admission Glasgow Coma Score (GCS) was 13.3, half of the fractures were located in the frontal region. 79% of patients had the fracture overlying the superior sagittal sinus (SSS). Venous sinus wall tear is found in twenty-three patients (53.5%). Common associated injuries were extradural hematoma (49%) followed by Brain contusion (27.9%). massive blood loss from the injured sinus wall could be controlled by simple digital pressure using Gelfoam in 15 patients (35%), ligation in 5 patients (11%) and primary repair (sinuraphy) in 3 patients (7%). Common complications were wound infection (7%) and cerebrospinal fluid leak (4.7%). No mortality was recorded in our study. The mean length of hospital stay was five days, and the mean follow-up duration was 6.8 months. Thirty-one patients (72.1%) had a good recovery.

**Conclusion:** The refinement in the surgical nuances has now enabled us in managing depressed fractures overlying major dural venous sinuses with minimal risks of complications. Depressed fractures over venous sinuses did not cause an injury on the wall of the sinus in a half of cases and blood loss from lacerated dural venous sinus could be stopped with simple digital pressure in most cases. However, presence of expert neurosurgeon is important in all cases to deal with low incidence of difficult bleeding cases.

**Keywords:** Depresses skull fracture, compound fracture, Venous sinus, Surgical management.

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**Post Neurosurgical Meningitis Among Vp Shunt and Evd Patients Operated In Althawra Hospital from Jun 2021 to Dec 2021**

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Dr. Mohammed Abdullah Al-Jarpani

**Overview** Post-neurosurgical meningitis (PNM) is a severe disease, associated with high mortality rates, severe neurological sequelae, prolongation of hospital stay and costs

**Objective** We aimed to review the epidemiology, clinical presentation and laboratory findings and follow management and outcome of PNM among patients post VP shunt and EVD operated in neurosurgical department of Althawra hospital between 1 Jun 2021 to 31 Dec 2021. Study design, Retrospective descriptive study

**Method and sample** Our community was all shunted and EVD patients operated through 2021 in Althawra Hospital

**Result** Incidence of post-neurosurgical meningitis in 73 patients operated by 89 shunt and EVD in 19 patients which was 26%. Significant risk factors for infection were CSF leak, associated infections, and other pathological.

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## Epidemiology And Management Of Penetrating Upper Nerve Injury In War Of Yemen

Dr: Rasheed Aljabery

### **Abstract**

**Purpose:** The aim of our study is to know how can gunshot and shrapnel destruct nerve and associated vital organ and nature of injuries for determine intervention nature, graft or anastomosis or release adherence to beside tissues. Also aim to let stump fingers on about nature of nerve injuries and expectant for surgeon previously about what can to do and take his requirement and intervention before.

**Methodology:** In this study files notes, post op, retrospectively, for 91 case reported with penetrating upper nerve injured collected and analysed from three sides first from incidence of nerve that included R, U, M and brachial plexus and excluded other upper nerve. The second analysed was type of injury that surgeon faced, and lastly operation technique used. Application used for analysed this study was SPSS.

**Results:** The most nerve injured in this study was ulnar 42.9% followed by radial 37.4% and median and brachial plexus 13.2%-6.6% respectively. The most common injury was incomplete injury (axonotmesis) 58.2% followed complete injury (neurotmesis) 40.7%. The most technique used was neurolysis 60.4% followed by neurolysis 33% and autograft 5.5%.

**Conclusion** The PNI made conflict from study to other, its results differed in the more and

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approximation not exactly, that's may be as a result of differed weapons used in war from state to other as a result differed injuries nerve state.

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### **Surgical Outcome of Thoracolumbar Fracture With Neurosurgical Deficits A Retrospective, Study**

Dr. Maher Ameen Ahmed Abdo,

**Background:** The epidemiological information of a prolonged populace on spinal trauma in Yemen is needed. The current study was once attacked to reflect the improvement after the operation and in follow-up according to ASIA score by paying attention to a number of variables

**Materials and Methods:** 152 patients with thoracolumbar spinal accidents admitted from January 2019 to November 2021 in the TMGH in the Neurosurgical department 102 patient underwent conservative treatment and 50 pt was operated according TLICS score were blanketed in the analysis. retrospective facts recuperation trial of these patients. Epidemiology: Epidemiological elements like age, sex, time from trauma to time of operation, and region of trauma, type of trauma, improvement after operation, improvement at follow-up. Average follow up was three months to six months (36- months). Neurological fame was once assessed the usage of the Asia grading

**Results:** The male-to-female ratio was 3.17 : 1 . Age group A was 70 %, Time grading was grade1 56% grade2 24% grade 3 20%. lumbar was most presentation region. RTA less mechanical injury presentation grade(A) Asia score 30 % improvement 6.7 % to B and 6.7 to D in follow-up. presentation was grade(D) Asia score improvement post-operative 28% and in follow-up 20 %

**Conclusion:** There are many factors that affect the patient's improvement after the operation, such as gender, age group, and the mechanism of injury. We also noted that time is very important and a strong factor to support the patient's improvement after the operation as well as of Asia grading.

**Keywords:** Thoracolumbar fracture, retrospective study, Epidemiology, outcome, ASIA grading.