YNS-1

Preaccessory transjagular-tubercle route: A novel access for ventrocaudal PICA aneurysms

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OBJECTIVES: Important neural structures including the medulla oblongata, cervical spinal cord, and lower cranial nerves are a nuisance to access the ventral craniocervical junction (CCJ). Posterior inferior cerebellar artery (PICA) aneurysms are often located in the ventral CCJ and considered as one of the most challenging skull base surgeries. Following conventional transcondylar and transcondylar fossa routes, serial postoperative morbidities, particularly multiple lower cranial neuropathies should occur.1-3 Additionally, recurred and/or very small PICA aneurysms are hardly treated with endovascular approach. Therefore, a novel access to such aneurysms with preservation of neural functions is paramount.4

METHODS: Herein, an adequate preaccessory surgical corridor was accomplished to clip a recurred PICA aneurysm without surgical manipulation of other lower cranial nerves. A triangular area over the jagular tubercle, bounded by 1- the sigmoid sinus, 2- spinal accessory nerve and 3- an imaginary line connecting these two landmarks, was drilled to create our surgical route (Fig. 1).

RESULTS: The aneurysm was successfully clipped via the preaccessory transjagular-tubercle route. The postoperative course was uneventful without evidence of lower cranial nerves neuropathies. The patient was discharged without any complications.

CONCLUSION: Preaccessory transjugular-tubercle approach is worthwhile option for treatment of the ventrocaudally located PICA aneurysms without postoperative lower cranial nerves neuropathies, and to resolve the limitations of other conventional approaches.

LEARNING OBJECTIVES: Ventrocaudally located PICA aneurysms should be accessed between vagus and accessory nerves; however, in many cases, there is no surgical corridor there as the vagus nerve exists as several rootlets between glossopharyngeal and accessory nerves. Accordingly, a critical risk of postoperative swallowing disturbance is present. To avoid such complications, the presented extradural preaccessory transjugular-tubercle route could be selected as an additional option in selected patients.

SIGNIFICANCES (HOW IT WILL POSITIVELY AFFECTS OUR PATIENTS?):

1- Surgical manipulation of the lower cranial nerves will be abounded.
2- Adequate surgical corridor will be created.
3- Serious complications will be avoided.
4- The postoperative course will be enhanced.

YNS-2

Management of Complex Intracranial Aneurysms; Case Presentation and Review of Literature

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Management of Complex Intracranial Aneurysms; Case presentations and review of literature

Case 1

An un-ruptured giant anterior circulation aneurysm was found during evaluation of a 56 year old female patient who presented with diplopia and a left dilated pupil. Angiographic evaluation revealed a giant left A2 aneurysm and complex vascular branching pattern. Given the unfavourable natural history, she was offered surgical intervention.

The aneurysm was managed with exclusion of the aneurysm and A2 to A2 end to side anastomosis. Intra-operative and post-operative angiographic studies demonstrated complete exclusion of the aneurysm with good distal flow. The patient had an uncomplicated recovery course.

Case 2

A 19 year old man presented with new onset left sided weakness and facial droop. A CT scan of the head revealed a left sided MCA aneurysm with complex anatomy on angiography. Following a multidisciplinary assessment, he electively underwent a right External Carotid to M2 anastomosis and exclusion of the aneurysm.

A post-operative angiogram demonstrated an excellent bypass with good distal flow. He had an uneventful recovery course and was discharged to rehabilitation for his stroke.

We highlight these examples and review the literature on the management of complex intracranial aneurysms.

YNS-3

Left P com aneurysm in 72 year old Myanmar lady

○Aung Thurein Win, Win Myaing, Kyi Hlaing

Aung Thurein Win

72 year old lady was admitted to Medical ward with severe headache and neck stiffness for four day.And,CT (head) scan showed Left sylvian SAH with moderate degree of hydrocephalus. CT angiogram showed large P.com Aneurysm on the left. So,we clipped it in the following day and she has passed uneventful post operative period.

YNS-4

Are all PICA aneurysm's dissecting in nature: review of 16 cases?

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Purpose

Subarachnoid haemorrhage from a ruptured posterior inferior cerebellar artery (PICA) aneurysm is uncommon with a reported incidence of between 0,5 and 5,3%Na+2, 3. Less common however is the incidental discovery of an aneurysm in this locationNa+1. PICA aneurysms are also a heterogeneous group with many having the angiographic features of dissection and others appearing saccular. We treated a patient with a ruptured small pica aneurysm that was saccular in appearance that subsequently rebled and on follow-up angiography appeared dissecting. This prompted us to review all PICA aneurysms to determine the angiographic features that may indicate underlying dissection.

Method

The University of Cape Town neurovascular database was searched using the terms "PICA dissection" and "PICA aneurysm" for the 10 year period from Jan 2005 to Dec 2014. Flow related aneurysms associated with arterio-venous malformations, giant aneurysms, unbled aneurysms, traumatic aneurysms and vertebral artery aneurysms were excluded from the analysis. Patient clinical, angiographic, treatment and outcome data was reviewed.

Results

16 patients with ruptured PICA aneurysms were identified out of a total of 1346 patients (1,2%). Six were identified as saccular and 10 as having features of dissection. Fusiform and saccular shapes were considered as dissecting as long as there was associated proximal or distal vessel stenosis or dilatation. The 6 saccular aneurysms were treated by clipping in 1 case and aneurysm coiling in 5, one of the patients rebled because of underlying dissection. The 10 dissecting aneurysms were treaded by coiling of the saccular component in 4 and stent coiling in 1 patient. Three patients had aneurysm trapping using NBCA or coils and 1 patient had parent vessel occlusion proximal to the aneurysm. Three patients with delayed presentation had no intervention and healing of the dissection was confirmed on repeat angiography. Overall outcomes were good for 14 patients with only one having severe disability and one mortality.

Conclusion

PICA dissection may have a fusiform appearance and careful assessment of PICA aneurysm angiographic morphology is required to determine if dissection is present.

YNS-5

POST TRAUMATIC BILATERAL DACA ANEURYSM: A CASE REPORT

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INTRODUCTION: Distal anterior communicating artery (DACA) aneurysm is uncommon, comprising about 2.7%-9.2% of intracranial aneurysms. Post traumatic DACA aneurysm is even a rarer entity, comprising only about 1% of intracranial aneurysm cases. The postulated etiology is due to the direct mural injury or acceleration induced shearing. It is a challenging condition to diagnose and even harder to manage due to the location of the aneurysm providing limited access for both endovascular and microsurgical management. A select subset of group might even be managed expectantly.

CASE ILLUSTRATION: We present a case of an unfortunate young man who suffered a moderate head injury which managed as diffuse axonal injury grade 1. A month after the injury patient developed generalized seizures for the first time. A CT scan revealed a huge right medial frontal intraparenchymal hemorrhage with intraventricular extension. Subsequent CT angiography revealed bilateral DACA aneurysm, almost mirroring each other, later confirmed on conventional angiogram. Patient underwent microsurgical clipping of the ruptured right sided DACA aneurysm a day later.

RESULTS: The ruptured aneurysm was successfully clipped in single attempt via interhemispheric approach under CTA IGS. The left sided unruptured DACA aneurysm was left untouched and was managed expectantly. Serial angiogram later showed occlusion of the right sided aneurysm and spontaneous thrombosis of the left sided aneurysm.

CONCLUSION: Management of bilateral post traumatic DACA aneurysm is challenging. The dilemma starts with choosing the best mode of management for bilateral DACA aneurysms, with one of it ruptured. Surgery also proved to be technically difficult, especially in locating the aneurysm. Thus image-guided surgery was used to overcome this. Post traumatic DACA aneurysm may have a delayed presentation such as in this patient, and further evaluations should be done to diagnose the condition. Prompt microsurgical clipping may be useful in managing this specific condition. Expectant management may have a role, but careful considerations should be taken.

YNS-6

Right MCA Anreurysm Clipping

○NANG SAW MYAT HNIN AYE, KYI HLAING, WIN MYAING

NANG SAW MYAT HNIN AYE

A 54 year old male patient with GCS 12/15 with a few hundred kilometers away from Yangon was admitted to medical ward and

referred to us with NECT (head) revealed SAH with right sylvian blood clots and moderate degree of hydrocephalus. Cerebral

angiogram was performed and right MCA aneurysm found and we clipped the aneurysm on the following day.

YNS-7

Outcome of aneurysm clipping in septuagenarians – a retrospective analysis in a basic neurovascular unit.

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Introduction

Neurovascular surgery has progressed in leaps and bounds over the decades. The evolution of refinements in techniques and evolution of modern gadgetries have improved the outcome of aneurysm clipping in good grade young patients. However, the results of the same in elderly population is sombre. The outcome is anticipated to be more glimmer in a setup which lack modern facilities. We present our experience of surgical clipping in elderly patients in such a basic neurosurgery unit.

Materials and methods

A retrospective analysis of hospital records of elderly patients aged between 70 – 78 years who underwent surgical clipping of intracranial aneurysms between 2015 to 2017 was done. The severity of Sub arachnoid haemorrhage(SAH) was graded using the WFNS scale. The patient characteristics, associated comorbidities, aneurysm characteristics, intra-operative and post-operative complications were studied. The outcome was assessed by Glasgow outcome scale (GOS).

Results

Data were analysed for the 21 patients. Eight patients had Diabetis and 17 patients were Hypertensive. There were 11 patients who had WFNS grade 1 SAH, five with grade 2, two with grade 3, and three with grade 4 SAH. Aneurysms were mostly located in the anterior circulation. Postoperatively complications occurred in 14 patients which ranged from focal weakness to infections. Respiratory infection was the most common complication followed by hyponatremia and hemiplegia. Outcomes according to GOS was analysed. Eight patients died, three were severely disabled while another three were moderately disabled. Good recovery occurred only in seven patients.

Conclusion

A major surgery in already compromised individuals should be dealt with utmost care and experienced hands. A multidisciplinary team approach as well as facilities to pick up early reversible complications can improve outcome.

YNS-8

57 years old lady with left ICA bifurcation Aneurysm

○Su Myat Mo, Win Myaing, Kyi Hlaing

Su Myat Mo

A 57 years old lady , 300 kilometer north east of Yangon was admitted to general medical ward with loss of consciousness ,severe headache and neck stiffness. CT angiography showed left ICA bifurcation aneurysm and she was referred to our Department of Neurosurgery. We clipped the aneurysm the following day .

YNS-9

Ruptured anterior communicating aneurysm presenting early recurrence after complete clipping: a case report

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Background

Clipping has been described to be more curative than coiling in aneurysm treatment. However, we encountered de novo or regrowth of aneurysm in clipping on occasion, which usually occur lately. We herein report the case with early recurrence of ruptured aneurysm as a rare complication after complete clipping.

Method

The patient was a 75-year-old female presenting sudden onset of severe headache. Computed tomography (CT) demonstrated diffuse subarachnoid hemorrhage (SAH) due to anterior communicating aneurysm rupture. She underwent left fronto-temporal craniotomy and clipping. Postoperative course was uneventful. However, follow-up CT revealed unexpected hematoma around clipped aneurysm 20 days after clipping. Digital subtraction angiography showed residual aneurysm just above the clip blade.

Result

The next day she underwent surgical intervention when the clip was re-applied and disappearance of aneurysm was confirmed by intraoperative angiography.

Conclusion

Re-rupture of aneurysm in early period from surgical intervention should be considered as a rare complication even after the aneurysm was completely clipped. Repeat angiography or CTA might be needed for detection of early recurrence of aneurysm, which is extremely rare.

YNS-10

Aneurysm and AVM surgeries in North Okkalapa Hospital,Yangon,Myanmar

○Kyi Hlaing, Win Myaing

Kyi Hlaing, MD

There are two neurosurgical centers in Yangon,the biggest city in Myanmar,one in Yangon General Hospital and the other in North Okkalapa General Hospital.40 to 60 cases of aneurysms and 20 to 30 of AVM are referred to us annually,all of them are ruptured at the time of diagnosis. Up till now we have no insurance coverage in our nation, they are diagnosed with CT Angiogram and treated free of charge in Government hospitals and.Aneurysms of Anterior Circulation and SM Grade 2 and 3 AVM are operated in our department and I would like share our experience here.

YNS-11

Arteriovenous malformations in the central area. "Surgery through the sulcus"

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Introduction:
Arteriovenous malformation (AVM) is an abnormal collection of blood vessels consisting of direct fistulous connections between arteries and veins without a normal intervening capillary bed or functional neural tissue.
Intracerebral hemorrhage remains the most common and dangerous presentation.
The management of cerebral arteriovenous malformations is not simple, especially when it sits within a functional area.
We present with video illustration, the surgical characteristics through a sulcus of a right rolandic AVM.

Material and method:

We report a case of a 41-year-old left handed man, without medical history, who has suddenly presented a seizure for which a cerebral MRI was done completed by a cerebral angiography showing a grade 2 Spetzler-Martin AVM, located in right rolandic area.
The patient was operated through the rolandic sulcus, performing a complete micro-surgical resection.
We do not deplore morbidity and the patient is well under anti-epileptic treatment

Conclusion:
The main goal of treatment of a cerebral AVM is prevention of future hemorrhage and possible neurologic deterioration.
There are multiple treatment options for AVMs, Microsurgical resection through a sulcus remains an effective therapeutic option that can be proposed for grade I and II AVMs located within or immediately adjacent to eloquent areas.

YNS-12

Vein of Galien Aneurysm. A case report and literature review.

○Zarina A Shabhay, Leila Boutiah, Lotfi Boublata, Mohamed S Benachour, Djeinaba Bah, Souad Bakhti

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Vein of Galien aneurysm: A case report and literature review.
Introduction :
Vein of Galien aneurysm is a rare congenital vascular malformation of the sagittal plane located in the pineal region. It is a pathology affecting essentially the new borns and babies, with clinical manifestations depending on the age of discovery.
Clinical Observation:
A one year old male baby, without particular past medical history, who presented with a peri -orbital collateral venous circulation. A brain CT scan was done and revealed a vein of Galien aneurysm with tri-ventricle dilatation, significant dilatation of cortical veins, subcutaneous and peri-orbital veins and cortical atrophy. The diagnosis was confirmed by a CT angiography.
Discussion :
Actually, vein of Galien aneurysm is defined as an Intracranial arterio-venous malformation developed during the embryonal period. It consists of a collection of fistulae channeling into an abnormally persistent and dilated midline porencephalic vein of Markowski.
Of recent, false vein of Galien aneurysms have been classified. These are intra-parenchymatous Arterio-venous malformations draining into a normally developed but dilated vein of Galien.
It represents less than 1% of the brain Arterio-venous malformations diagnosed ante or post natally.
The main consequences include disruption of venous blood flow and pressure which explains the main symptoms (increase in occipito-frontal circumference, neurological deficits, seizures, heart failure and sub-arachnoid hemorrhage).
Discovery of the malformation following heart failure in a new born must orient the management of the heart failure to support the baby for the few months to the ideal moment for evaluation.

Conclusion :
The rarity of this condition, it's gravity and the importance of early diagnosis and treatment have pushed us to present this case on it's particular clinical and radiological presentation and management.

YNS-13

Uncommon Cavernomas Locations In The Brain

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Introduction:
Cavernomas are relatively common vascular malformation in the central nervous system, they are rarely located in the ventricles (2,8%-10%) and are even more rarely found on the optic pathway (0,3%-0,7%) or in the brain stem (20,6%). We report the surgical experience of Professor Morsli and his team, about three uncommon different cavernomas locations, Optic chiasm, lateral intra-ventricular and a vermio- cerebellar huge cavernoma, describing the clinical expression, the radiological features, and the surgical outcomes.

Material and methods:
The first case is 54 years old female patient, presented consciousness impairment with at the brain CT scan a tetra-ventricular haemorrhage. The MRI showed a cavernoma at the frontal horn of the right lateral ventricle, this lesion was completely removed through a trans-callosal approach.
The second case is a 20 years old female patient with a left acute visual loss due to an optic chiasm cavernoma. Diagnosed on the T2 sequences of the brain MRI, a total removal via a left trans sylvian approach was achieved.
The third case is 2 years old female infant, which present balance disorder associated with left facial nerve palsy, the brain MRI showed giant cavernoma extending from the vermis to the left cerebellum hemisphere, a total removal was achieved through a lateral sub occipital approach.

Conclusion:
Whatever the location, the management of a symptomatic cavernoma using the modern microsurgery allows a complete surgical resection and a good outcome.

Key words: cavernoma, vascular malformation, lateral ventricle, optic pathway, infant.

YNS-14

Cavernoma in 11years old girl

○Aye Mya Phyu, Win Myaing, Kyi Hlaing

Aye Mya Phyu

A girl with 11 years, 200 kilometers north of yangoon was referred to as with large intracerebral haematoma in right temporoparietal region , at that time CT angiography was neither aneurysm nor AVM . CT head scan after 2 months showed cavernoma very close to the ventricular wall , so with the help of neuronavigation , we removed the mass totally and uneventfull in postoperative period.

YNS-15

AVM in pregnancy- Current status

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Introduction

The prevalence rate of cerebral arteriovenous malformation (AVM) is approximately 0.01%–0.5% and generally presents symptoms at 20 to 40 years age, most commonly at 30 years old, and equally affects men and women. AVM hemorrhage is a rare but grave complication of pregnancy and is responsible for 5%–12% of all maternal deaths during pregnancy and 17% fetal mortality. Pregnancy coexisting with AVM is a complex situation and may involve pre-existing, incidental findings or hemorrhage prior to or during pregnancy. Once the diagnosis is made, the management is mainly based on neurosurgical consideration rather than obstetric considerations. It is difficult to outline the natural history of AVM in pregnant women due to small number of cases. There is controversy regarding the issue of whether or not pregnancy increases the risk of hemorrhage from intracranial AVM. This review was performed to search these answers in different published literature.

Methods

A Pub Med and Google search using the terms “cerebral arteriovenous malformation, pregnancy and treatment” was performed from 1992-2017. Clinical data of maternal age, parity, Gestational age, presenting symptoms at admission, obstetric management, postoperative complications, follow-up not es, and maternal outcome were recorded from abstracts and full article.

Results

The patients’ ages ranged from 16 to 45 years, with a mean of 28 ±4.9 years. Result summarized in Table Format. (Table- 1)

Conclusion

AVM hemorrhage presentation was significantly associated with poor maternal outcome. Pre-existing ruptured AVM may be not associated with maternal risk. Gestational age of AVM rupture was not significantly associated with poor maternal outcome. Pregnancy was not associated with increased AVM rupture.

YNS-16

Surgical treatment of spinal dural arterio venous fistula : our experience

○IBRAHIM ASSOUMANE, LOUCIF HOUARI, SABRINA BACHIR, ABDELHALIM MORSLI, TAHER BENBOUZID

CHU BAB EL OUED ALGIERS ALGERIA

Introduction: Spinal dural AVF is arteriovenous communication on the spinal dura with peri-medullary venous drainage. It is a curable cause of myelopathy and the most common form of spinal AVM. Average age of revelation is the fifth decade; it is a diagnostic and therapeutic emergency. The treatment is usually surgical. Materials and methods: We operated five patients in whom the diagnosis of spinal dural AVF was made. There were 4 males and one female, all of them older than 45 years of age. We assessed the clinical status of patients according to the Aminoff-Logue handicap score which has 4 grades before and after surgery. All patients did a total spine MRI that demonstrated serpiginous images and a hyperintense intra-medullary signal. Medullary angiography has facilitated the pin-pointing of the exact location of the dural fistula.The surgical intervention consisted of a disconnection of the arteriovenous communication by ligature or coagulation and section of the fistula at the foot of the vein after laminectomy. The average follow-up is 6 months.Results: At admission, patients presented with signs of neurological deficits (walking disorders and sphincter disorders). Post-operative results were marked by a progressive improvement of the neurological deficit. The Aminoff logue score improved in all patients after 6 months. Functional rehabilitation was prescribed for all patients and were regularly followed-up. Conclusion: Treatment of AVF is usually surgical. Results depend largely on preoperative neurological status.

Keywords : Arteriovenous fistula; Arteriovenous malformation; Myelopathy

YNS-17

Endovascular treatment of acute ischemic stroke in intrahospital patients

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National Centre for Neurosurgery

Objective: The aim of this study is to asses results of endovascular treatment of acute ischemic stroke in intrahospital
patients with cardiac pathology.

Methods: The treatment outcome of 10 patients with symptoms of acute ischemic stroke during their stay in cardiosurgical clinic was analyzed. CT and angiography demonstrated occlusions of the internal carotid, middle cerebral and basilar arteries. All patients were urgently operated by one of the following methods: the endovascular, selective thrombolysis, mechanical thromboextraction and a selective intra-arterial thrombolysis with thromboextraction. Then patients were evaluated by the following parameters: a time from the onset of symptoms of ischemic stroke till start of endovascular treatment, a degree of recanalization on the TICI scale, symptomatic intracranial hemorrhage within 24 hours from the onset of symptoms of ischemic stroke and functional independence of patients (modified Rankin Scale) 1 and 3 months after the operation.

Results: The average age of patients was 56.9 years. Acute ischemic stroke developed during 1-4 days after cardiosurgery in 4 patients, prior to cardiosurgery in 2 patients, and in 4 cardiac patients. All patients were operated in less than 6 hours after the onset of symptoms of ischemic stroke. Selective thrombolysis was performed in 3 cases with M2-M3 occlusion of MCA (TICI 2B, 3); 5 patients underwent thromboextraction with occlusion of ICA and M1 MCA (TICI 3), M1-M2 MCA (TICI 2A, 2B, 3); in 2 patients thrombo-extraction with thrombolysis was performed with occlusion of the basilar artery and M1-M2 of the MCA (TICI 3). Symptomatic intracranial hemorrhage was detected in one patient after 11 hours of selective thrombolysis with M2 occlusion (TICI 3), which did not require surgical treatment. The modified Rankin Scale after 1 month: mRS 0 (40%), mRS 1 (20%), mRS 2 (20%), mRS 4 (20%); 3 months after the operation: mRS 0 (60%), mRS 1 (20%), mRS 2 (10%), mRS 4 (10%). In the postoperative period there were no mortalities.

Conclusions: Endovascular treatment in the first 6 hours after the onset of symptoms of acute ischemic stroke once again demonstrates the efficacy and good functional outcome according to the mRS after 3 months of operation.

YNS-18

Coil Embolization of Intracranial Aneurysms, Our initial experience of 68 cases in the field of Endovascular Neurosurgery.

○MD ROKIBUL ISLAM[1], MD. SUMON RANA[2], MD. SHAFIQUL ISLAM[3]

[1]Dr. Md Rokibul Islam, [2]Dr. Md. Sumon Rana, [3]Dr. Md. Shafiqul Islam

Introduction:

Endovascular Neurosurgery is a concept of thinking and treating of neurovascular diseases endoluminally. The goal of endovascular coiling is to isolate an aneurysm from the normal circulation without blocking off any small arteries nearby or narrowing the main vessel. Endovascular describes the minimally invasive technique of accessing the aneurysm from within the bloodstream. Coil embolization is a minimally invasive procedure to treat an aneurysm by filling it with material that closes off the sac and reduces the risk of rupturing or rebleeding.

Method

Sixty-Eight patients with intracranial aneurysms of both anterior and posterior circulations were treated with coil embolization. Technical and clinical results, initial follow-up imaging, and MR angiography (MRA) were reviewed.

Results.

GDC coils were successfully deployed in 66 intracranial aneurysms. Initial post treatment angiography revealed complete occlusion of all aneurysms. Follow-up imaging performed in 33(50%) of aneurysms showed complete occlusion of 30 aneurysms (90.9%), residual neck in 3 (9.1%), and residual filling in no aneurysm. No aneurysms required retreatment. MRA follow-up revealed stability or progressive thrombosis in all aneurysms. 2 cases were aborted. There were 2 cases of significant neurological morbidity (3%) and 2 case of death (3%) related to treatment.

Conclusions. Endovascular coil embolization of aneurysms increases the number of patients that may be treated endovascularly and represent an acceptable alternative to craniotomy. Endovascular occlusion of the intracranial aneurysm is a safe, minimally invasive, and reliable treatment for intracranial aneurysms.

Key Words: Intracranial aneurysm, Coil Embolization, Endovascular Neurosurgery, GDC coil.

YNS-19

Withdrawn

YNS-20

Intra-arterial Thrombolysis in The Era of Mechanical Thrombectomy: Is it still worthdoing?

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Introduction

Stroke continued to be a major burden and currently is the number one cause of death in Indonesia. The breakthrough of neuroendovascular procedure from several studies favoring a very good outcome from neuroendovascular treatment by mechanical thrombectomy has change the paradigm of treating of ischemic stroke. As fascinating the results of international trial, the practice in Indonesia can not keep up with the neuroendovascular advancement due to several problems. Timing, resources, health system and financial health plan have not lean towards endovascular procedure yet. Despite all factors that neurointerventionist still try to do revascularization with minimal instrument and at low cost as possible.

Aims

The purpose of this study is to show preliminary data from cost and effectiveness poin of view from several patients underwent intra arterterial cerebral trombolysis.

Material and Method

Data derived from Pertamina central hospital using medical record data from 2015 until 2017. Eligibility based on Stroke Thrombolysis Guidelines. NIHSS and Modified Rankin Scale were taken for baseline for outcome measurement including door to puncture and underlying condition. Preliminary imaging CT scan was done followed by MRI if onset was doubted.

Result

From twenty patients admitted only six underwent the procedure. In Average Modified Rankin scale improved from average 4 to 1 in 5 patients. Two patients had history of hypertension , One had hypertension and diabetes and the remaining three had no history of known illness. One died following enlargement of ischemic area and one patient has an ICH at area of alteplase and ischemic early lesion contraletral but improve after conservative treatment with close monitor of blood pressure and fluid balance and reach modified Rankin scale of 1 afterward.

Conclussion

Intra arterial thrombolysis is still adequate, in absence of mechanical thrombectomy. Door to puncture was 4,5 hours on average. Limitation of the study was number of patients admitted due to lateness of arrival or not getting consulted fast enough that they missed the window of opportunity. On cases of confirmed large vessel occlussion past four hour we prefer to leave it to the neurology for conservative treatment.

YNS-21

Selective Embolization of MMA for the treatment of refractory Recurrent Chronic Subdural Hematoma: A Case Reports and Literature Review

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BACKGROUND: Refractory chronic subdural hematomas due to iatrogenic dural arteriovenous fistulas (dAVFs) are difficult to treat. We report our experience and propose a guideline on basis of a literature review for the usefulness of embolization of middle meningeal artery (MMA) for the treatment of the same.

-CASE DESCRIPTION: We report 4 cases with Chronic Subdural hematoma treated with repeated burr-hole drainage. The postoperative course was complicated by reaccumulation within short period of time. On superselective digital subtraction angiography of MMA, iatrogenic dAVF was found in 3 cases. We embolized successfully it using n-butyl cyanoacrylate after a third irrigation. No reaccumulation found in the post- operative period or at last follow-up. We propose treatment protocol based on our experience and literature review.

-CONCLUSION: Refractory chronic subdural hematoma with re accumulation within a short interval should be subjected to digital subtraction angiography of the MMA. Embolization of ipsilateral MMA is safe, effective, and a useful option for the treatment of iatrogenic dAVF and resolution of hematoma.

YNS-22

Surgical Management of Medulla Oblongata Hemangioblastomas in One Institution: Analysis of 82 Cases.

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Object. The Hemangioblastomas of the central nervous system are highly vascularized benign tumors. When the tumors located in the medulla oblongata, the intraoperative bleeding would make the surgical procedure very difficult. In recent years, blocking the suspicious feeding arteries of the tumors selectively in operation assisted by the intraoperative neurophysiological monitoring was performed in the department of Neurosurgery in West China hospital. The purpose of this study is to review all the cases that underwent this surgical management and evaluated the outcome.

Method: Between 2003 and 2016, 82 patients (46 female and 36 male, mean age 37.7 years) underwent microsurgery resection of 87 medulla oblongata hemangioblastomas. The suspicious feeding arteries were identified preoperatively by the CTA or DSA. In the operation, the suspicious feeding arteries were blocked selectively assisted by the motor evoked potential (MEP) and somatosensory evoked potential monitoring(SEP). Based on the retrospectively review of the clinical records and outpatient long-term follow-up visits, their clinical courses were analyzed.

Result: Tumor max diameter ranged from 0.8 to 5.1 cm (mean, 2.9 cm). Total tumor resection was achieved in 71 patients. 71 tumors were en bloc removed and the other 16 were piecemeal resected. The mean follow-up period was 47 months. During follow-up period, 54 patients remained neurologically stable, 27 patients recovered to a better status and 16 patients developed new transient neurological dysfunction. One patient died. In all the cases, tumor recurrence was observed during follow-up in only 2 patients.

Conclusion: The authors' study suggests that safe and effective surgical management of medulla oblongata hemangioblastomas can be achieved for most patients, even without preoperative embolization. By the assistance of intraoperative MEP and SEP, mistaken blocking of the vessels that feeding the brainstem can be avoided. With improved microsurgical techniques, intraoperative neurophysiological monitoring and a better understanding of the vascular pattern of tumors, total and en bloc microsurgical removal can be performed with low mortality and favorable prognosis of neurological function.

YNS-23

Primary brain melanoma

○zuhair hawsawi

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Primary central nervous system (CNS) melanomas are rare tumors arise from the population of leptomeningeal melanocytes that are scattered throughout the arachnoid membranes. The nodular form of primary CNS melanoma manifests as a solitary, discrete neoplasm with a slight predilection for the spinal cord and posterior fossa—the most abundant source of precursor melanocytes. Less than 60 cases of primary CNS melanoma reported in the literature. Here, we report a case of a 55-year-old man who presented with nausea, vomiting, & sudden loss of consciousness.

CT brain with contrast and MRI showed a left temporal lesion which was resected & histologically proved to be primary CNS melanoma.

Keywords: primary central nervous system, melanoma

YNS-24

INTRA ORBITAL SCHWANNOMA, A CASE REPORT AND REVIEW OF LITERATURE

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EHS ALI AIT IDIR, ALGIERS, ALGERIA

Introduction:

Orbital schwannomas are rare and represent 1-5% of intra orbital tumours.

Clinical case:

A 54 year old patient presenting with left progressive, axial, painless exophthalmos, without signs of inflammation for 10 years and normal visual acuity.

Clinical examination revealed a patient with a grade III exophthalmos, visual acuity 10/10 in both eyes, normal visual field, fundoscopy examination and ocular muscle movements.

Orbito-Cerebral CT scan showed a left intra orbital fusiform tissue behind the ocular globe compressing the optic nerve, heterogeneously enhanced by contrast, and measuring 25x22x19 mm

Bain MRI showed a left well circumscribed intra conical intra orbital mass with regular margins, appearing hypo-intense in T1 sequence and heterogeneous in T2 sequence.

The patient was operated by a supero-lateral orbitotomy with good post-operative outcomes.

Histopathological results revealed a benign intra-orbital schwannomas.

Discussion:

Orbital schwannomas are rare (1-5%) of intra orbital tumors, generally painless and slow growing. They are extra optic tumors and the visual acuity is usually conserved except if there is compression of the optic nerve by significant tumor volume; it can be associated with Von Recklinghausen disease.

Intra orbital schwannomas generally arise from intra orbital sensory nerves, most frequently the supra orbital and supratrochlear branches of the frontal nerve evoking also a hypoesthesia in their territory, differentiating them from cavernous angiomas.

Other origins of intra orbital schwannomas are the infra orbital nerves or the naso ciliary nerve.

Intra orbital CT scan shows an isodense, well circumscribed, homogeneous lesion enhanced by contrast. MRI T1 sequence shows a well circumscribed lesion in the orbital fat and iso-intense with the muscle. A fine peripheric annular contrast enhancement seen is pathognomonic. In T2 sequence the tumor appears hyper intense.

Cavernous hemangioma is the only differential diagnosis.

Anatomopathologically, they are solid encapsulated tumors. Cystic forms are rare.

The only definitive treatment is surgery; if total excision is achieved there are no recurrences

The surgical approach depends essentially on tumor location and volume.

YNS-25

Von Hippel-Lindau Disease: an Evaluation of Natural History and Functional Disability

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Introduction. Although many studies have been published about specific lesions characterizing von Hippel-Lindau disease (VHL), none deal with the natural history of the whole disease and the consequent disabilities. We aim to define the comprehensive natural history of VHL disease, to describe the functional disabilities and their impact on patients' quality of life, tailoring the follow-up schedule accordingly.

Methods. We carried a prospective analysis on 128 VHL-affected patients since 1996. For each affected organ, we defined intervals between the first and subsequent VHL-related manifestations, comparing them with current VHL surveillance protocols. We looked for any association of the number of involved organs with age, sex, type of VHL gene mutation, and functional domain mutation. Ultimately, we assessed the organ-specific disabilities caused by the VHL disease.

Results. Hemangioblastomas show different progression depending on their location, whereas both renal cysts and carcinomas have similar progression rates. Surgery for pheochromocytoma and CNS hemangioblastomas is performed earlier than for pancreatic or renal cancer. The number of involved organs is associated with age but not with sex, type of VHL gene mutation, and functional domain mutation. A thorough analysis of functional disabilities showed that age is related to the first-appearing functional impairment, but it is not predictive of the final number of disabilities.

Conclusion. Our study defines the disease progression, providing a comprehensive view of the syndrome over time. We analyzed for the first time the functional disability of VHL patients, assessing the progression for each function.

YNS-26

Decompressive Hemicraniectomy in MCA malignant infarction: clinical outcome and selection criteria in Modena Registry

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Background: Malignant cerebral infarction is associated with a high mortality rate. Decompressive Hemicraniectomy (DH) reduces mortality by 50% in the acute phase, with an increase in moderate-to-severe disability in the surviving patients, as compared to patients receiving medical treatment. The aim of this study is to evaluate mortality and the clinical outcome by modified Rankin Scale (mRS) of patients with malignant cerebral infarction prospectively enrolled in our local Registry of Decompressive Hemicraniectomy.

Methods: Anamnestic, clinical, timing and neuroimaging pre and post intervention characteristics were evaluated. Follow-up assessment by mRS was at 3 months and 1 year after surgery.

Results: a total of 30 patients were registered. Comparing the data of the clinical outcome at 1 year of a pooled analysis of three European randomized clinical trials (HAMLET, DECIMAL, DESTINY I), the overall mortality of our group was found to be higher (31% vs 22%), especially in late intervenction (>36h) and low GCS (<10). Among the survivors our patients presented clinical outcomes similar to the trials one (mRS=3 33% vs. 29%; mRS=4 29% vs. 31%).

Conclusions: DH in the treatment of malignant brain infarcts has changed the natural history of this disease in terms of mortality and functional outcome. Our study partly confirmed the results of the meta-analysis, but also showed that late intervenction and a low GCS both pre and post hemicraniectomy are associated with a higher mortality.

YNS-27

Pituicytoma case report and review management literatures

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Pituicytoma is a rare condition of adulthood. Bitemporal hemianopsaia, amenorrhea, decrease libido/impotence and headache are common presentations. Despites it is defined according to WHO central nervous system tumor classification as a low-grade spindle cell astrocytic tumor originating in the posterior pituitary or its stalk , diabetes insipidus (DI) is uncommon presentation. To our knowledge about 32 cases are reported. In the literatures, it is described that total excision is the treatment of choice. It was described in some cases which were small lesions. However, it is not possible sometimes due to hyper vascularity especially in large lesion as in our case and in many reported cases . We are reporting a pituicytoma case where

trans-cranial and then trans-sphenoidal approaches were done to achieve a total excision of the lesion, however, it was not possible due to hypervascularity. Radiotherapy was described as another choice of management for the residual lesion , however its benefit was controversial as the disease is rare and so the patients who received radiotherapy (Fractionated or radiosurgery). We will discuss also the pathology and review literatures in managing such rare condition.