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**HOW TO GET OUT OF JAIL: AN ENDOVASCULAR APPROACH TO A MAL-POSITIONED CENTRAL VENOUS DIALYSIS CATHETER FROM LEFT SUBCLAVIAN ARTERY TO LEFT VENTRICLE**

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**ABSTRACT**

**Introduction:** Central venous dialysis catheterization is a common procedure for attaining a haemodialysis access. Iatrogenic injuries are known to occur, 4-35%. Injuries involving the arterial system secondary to the procedure are known to be catastrophic and increase morbidity and mortality.

**Result:** A 62-year old female, with established renal disease presented to the emergency department for severe sepsis with altered mental status secondary to catheter related blood stream infection from an indwelling left internal jugular catheter. Her co-morbid include hypertension and diabetes mellitus. Infected catheter was removed and a new 12 F catheter was inserted through a new route at the left internal jugular vein. However, this resulted in an unintentional mal positioning of the catheter, with chest x-ray suggested the tip of catheter to be in the left ventricle. The patient was, then, referred to our team. Computed tomography angiogram revealed the placement of the catheter into the left subclavian artery (LSA) and directed to the aortic valve into the left ventricle. Emergent concurrent removal and endovascular stenting of the LSA were performed, as opposed to open surgical repair. This approach reduced the risk in an unwell patient. Left brachial and left common femoral access were obtained for stenting and angiography respectively. A balloon expandable stent (8x57mm) was inserted in place over a Rosen wire protected by a 6F 45cm sheath. Upon pull back of sheath to expose the stent, the catheter was removed with immediate deployment of the stent. There was minimal blood loss. Final angiography revealed no extravasation of contrast and the patient showed good recovery with good left upper limb perfusion and no neurological complication.

**Conclusion:** This case report describes the technical aspect and clinical decision in managing an arterial injury related to central venous haemodialysis catheter- allowing in a relatively bloodless and complication free procedure.

# ENDOVASCULAR TREATMENT OF CAVERNOUS SINUS DURAL ARTERIOVENOUS FISTULA VIA RADIAL ARTERY AND MEDIAN CUBITAL VEIN

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## ABSTRACT

**Introduction:** Cavernous sinus dural arteriovenous fistula (CS-DAVF) is an arteriovenous shunt where there is fistulous blood flow from the dural arteries from the internal or external carotid artery into the cavernous sinus. The current mainstay of therapy is endovascular treatment.

**Result:** We present a case of restrictive type of CS-DAVF in a 75-year-old male who presented with right eye symptoms. He was treated with embolization using trans-radial artery access for angiographic runs and a median cubital vein access navigating into the cavernous sinus for coil deployment. This technique completely avoids the conventional technique of a femoral approach and confines all access to the arm. Therefore, there are less risks and complications associated with an arm access, improves patients' comfort and mobility post procedure.

**Conclusion:** Trans radial artery and cubital vein access allows for a safe and convenient alternative technique using the arm as compared with conventional transfemoral approach for treatment of CS-DAVF.

## **TUNNELED ADULT PERIPHERALLY INSERTED CENTRAL CATHETER (PICC) FOR CENTRAL VENOUS ACCESS IN PEDIATRICS: A SINGLE CENTRE EXPERIENCE.**

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### **ABSTRACT**

**Introduction:** Long term intravenous access in paediatrics has been challenging in terms of ease of procedure, maintenance of catheter and complications that may arise. Our centre adopted the use of tunnelled adult Peripherally Inserted Central Catheter (PICC) for central venous access in paediatrics with the hope to improve these challenges. We describe a single institute 3-year experience of this technique.

**Material & Methods:** Retrospective medical records were reviewed for paediatric patients aged less than 12 years old who had tunnelled PICC insertions from January 2018 till December 2020. The following data were recorded: indication, diagnosis, reason for removal, duration of PICC, vessel inserted, PICC device type and complications.

**Result:** Eleven adult PICCs were inserted from this technique in 10 children. The average age was 35.7 months and average weight was 13.2 kg. The youngest patient was 3 months old at 6.9 kg. Most common indication for insertion was for long term antibiotics (82%) and the remainder were for difficult intravenous access. The procedure was done under local anaesthetic with sedation in 90% of cases. Average duration of PICC was 26.8 days. Out of 11 PICCs only 1 had line related infection that required premature removal of the catheter. 55% completed the intended duration while 27% PICCs had dislodged.

**Conclusion:** Tunnelled adult PICC for central venous access in the paediatric age group at our institution has a lower risk of infection. However, almost a third of the catheters inserted still suffered dislodgement.

# POST TRAUMATIC FACIAL PAIN; MULTIFACTORIAL CAUSES AND ROLE OF MINIMALLY INVASIVE PAIN INTERVENTION TREATMENT OPTIONS

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## ABSTRACT

**Introduction:** Post traumatic facial pain is a complex syndrome with multifactorial causes secondary to complex innervation in this region. Selection of appropriate mode of treatment may require multiple perineural infiltration for achievement of adequate pain control.

**Result:** A 39-year old male, with a history of motor-vehicle accident in December 2018 underwent CT Brain & Facial bones which was unremarkable, presented to our Oral & Maxillofacial Surgery (OMFS) team in February 2019 with complains of right sided facial pain since the accident. After thorough physical examination, a diagnosis of trigeminal neuralgia was made, and patient was subjected for CT guided Gasserian ganglion steroid injection which produced suboptimal pain control. At the time of procedure, preliminary CT scan in bone window demonstrated a right styloid process fracture, hence a CT guided right facial nerve steroid injection was planned thereafter. Patient responded well and thus proceeded for right styloid process removal surgery. Patient had a pain-free period for 16 months and presented again with recurrence of right jaw pain and inability to open the mouth (1 finger width). A temporo-mandibular joint (TMJ) dysfunction was suspected, and patient was then scheduled for CT guided TM joint arthrodesis. Patient developed improvement in symptoms and completed three sessions of treatment at 6 monthly intervals. Currently, patient is now able to open the mouth with 2 finger width and is awaiting the next follow-up.

**Conclusion:** Post traumatic facial pain has a complex aetiology and innervation. Detailed history, physical examination and radiological evaluation of multifactorial causes of facial pain is essential prior to administration of interventional treatment.

# A RARE CASE OF MECKEL'S DIVERTICULUM IN ELDERLY PRESENTED WITH GASTROINTESTINAL BLEED WITH MULTIPLE INTRAABDOMINAL SMALL VESSELS PSEUDOANEURYSM

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## ABSTRACT

**Introduction:** Meckel's diverticulum is the most common congenital anomaly of the gastrointestinal occurring in 2%–3% of the population; main occurred in paediatric and adolescence age group. Most of the patient will remain asymptomatic and the symptoms occurred is due to its complication. In term of presentation, diverticulitis and small-bowel obstruction are the most common presentations in adult series where else in the paediatric population, GI bleeding and small-bowel obstruction are the most common presentations. Hence, we are reporting a rare case of Meckel's diverticulum in elderly presenting with GI bleed.

**Result:** 67 years old lady presented with per rectal bleeding (haematochezia and melaena). She underwent upper and lower GI endoscopy as well as capsule endoscopy, however unable to locate the bleeder. CTA mesenteric was carried out 3 times and subsequently she underwent 3 sessions of mesenteric angiography with embolization. Mesenteric angiogram revealed multiple sites of abnormal dilated vessels at mid abdomen (D3 area), left mid abdomen (ileum) and right iliac fossa (distal ileum). However, only the abnormal vessel at right iliac fossa shows contrast blush, which presumable the persistent vitelline artery in Meckel's diverticulum. Embolization of the vessels supplying these vessels was carried out. Despite that, Patient still having GI bleed and proceed with exploratory laparotomy that revealed Meckel's diverticulum located at the ileum, located 20-30cm from the ileocecal valve.

**Conclusion:** Even though Meckel's diverticulum it is rare in elderly, in a presence of obscured GI bleed, one must not put aside the possibility of it, so that specific and appropriate investigations can be carried out. With the advancement of diagnostic imaging, we can now co-operate multiple modalities (CT scan, nuclear imaging and angiography) to obtain the diagnosis. Knowledge of the anatomy and appearance of Meckel's diverticulum is important in making an appropriate diagnosis.