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Excellence Right Here!!

EDITORIAL DESK

Dear all readers,
Greetings from Medicover Hospitals

Dr. A. Sharath Reddy
Executive Director
Medicover Hospitals, India

Medicover Hospitals, being one of the largest Multispecialty Hospital Chain in India has created a greater impact in the field of Healthcare by providing quality care focusing on Patient-Centric Approach. We at Medicover always strive to provide effective, timely, and safe Care to all the Patients who visit our facilities across India. At Medicover, we always adopt innovation & automation which have paved way in healthcare providing newer technologies that support with precise diagnosis and newer treatment options Involving AI & Robotics. We have state-of-the-art technology which will cater to our patient needs which in turn result in better patient outcome and increased quality of life. We'll continue to put all our efforts, working closely to provide safe, high-quality medical care to everyone who visits. We look forward to your continued support.

Dr. Sateesh Kumar Kailasam
Group Medical Director
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Sharing knowledge is the key to Community education. Medicover hospitals as a group would like to enlighten the healthcare professionals about the advanced technologies and current modalities of treatment in various patients at the same time interested in increasing the awareness in the common public about the same.This platform will help everyone to know the extraordinary work done by the experts at Medicover India . Wishing you all the best to all writers and readers .

Dr. Rakesh Prabhu
Chief Medical Officer
Medicover Hospitals, India

Medicover Hospitals offer the highest quality and safest care possible for our patients. The objective of our hospital is to implement safe, leading-edge care and to develop medical professionals who are motivated by the opportunity to improve the quality of patient care. At Medicover, we have taken major steps to build a system of care that ensures timely, accurate, safe and effective treatments. We have launched initiatives to promote the patient safety culture by eliminating untoward hazards like, hospital-acquired infections, falls and pressure ulcers. We observe reporting areas of concern within our system seriously and are committed to provide corrective & preventive actions in an expeditious manner. We'll continue to put all our efforts, working closely to provide safe, high-quality medical care to everyone who visits. We look forward to your continued support.

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Blister Aneurysm Presenting As Focal SAH
(Blisters can bleed)

Medicover Hospitals - Hi-tec City

Introduction

Blister aneurysms are a rare type of bled-like outpouchings with wide base occurring at the non-branching portions of intracranial arteries. The most common location is the supraclinoid internal carotid artery (ICA). They have a reported proportion of 0.3%–1.7% in patients treated operatively, and up to 6.6% in those with ruptured intracranial arteries. Blister aneurysms have been reported in the anterior and posterior circulation, but the most common location is the supraclinoid internal carotid artery (ICA).

Case Report

A 66 year female with past history of migraine and hypertension presented with history of sudden onset severe head ache since one day. Head ache was sudden in onset , severe in intensity, different from the previous headaches she used to have because of migraine. Her blood pressure was 190/100mmhg, pulse 66/min. CNS examination did not reveal any cranial nerve or motor deficits. She was having terminal neck stiffness. Initially CT brain was done which was suggestive of right sided small focalhaemorrhage in right suprasellar cistern. MRI brain confirmed the same and MRA was normal. CT angiogram was done which was suggestive of small doubt full aneurysm in right supraclinoid terminal ICA. For further characterisation of the aneurysm DSA was done which showed a wide based hemispheric aneurysm with irregular dome in the right terminal ICA near the curve in the supraclinoid portion. Aneurysm is directed superiorly and anteriorly. Her antihypertensive medication were optimised oral nimodipine was started. After discussing all the treatment options and outcomes with patient and attenders she was taken up for endovascular Flow diverter stenting of the terminal ICA aneurysm. She was premedicated with loading doses of Ticagrelor and Ecospirin. Flow diverter stent of size 4.25mm*20mm was deployed across the neck of the aneurysm with good wall opposition. Procedure and the postprocedural course was uneventful . Owing to the small size of the aneurysm stasis could be appreciated. Vessel remodelling with complete obliteration of aneurysm is expected to be achieved in next six months in follow up angiograms. Gradually her headache subsided and she is discharged in stable state after three days of stenting.

Figure 1 : CT brain showing right sprasellar small focal SAH

Figure 2 : Fliar images showing Right suprasellar focal hyperintensity in consistent with CT brain images

Figure 3 : DSA right ICA shoot showed right terminal ICA posterior & superiorly originating blister measuring 3.18mm neck * 1.8mm neck to dome

Figure 4 : Flow diverter stent of size 4.25mm*20mm deployed across the neck of in the aneurysm in the right ICA

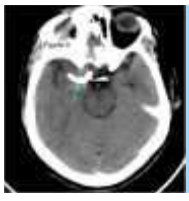

Figure 5 : Post procedural CT brain showing flow diverter stent insitu

Treatment

Treatment of blister aneurysms is technically difficult because of their fragility. Clipping sometimes is feasible but frequent rupture or vessel tearing necessitates other techniques. Early papers advocated wrapping with muscle, with subsequent adhesive coating or clipping. Later, authors described use of the Sundt encircling clip, clip-wrapping with synthetic wrapping material and in some cases, ICA trapping with or without bypass. However in cases of blister aneurysms surgical treatment has been shown to have a high rate of complications, morbidity, and mortality. With ongoing innovations in endovascular techniques they have become good alternative treatment with lower morbidity and mortality.

Endovascular treatments include destructive or constructive approaches. Destructive approach include endovascular coil embolization and balloon occlusion but they are not feasible in all situations and has high complication rates due to inadequacy of collateral circulation and potential for stroke.

Reconstructive options include direct embolization with stent assisted coiling, balloon assisted coiling, single or overlapping stents, flow diversion. In our case we have used flow diverter alone in view wide neck and very small neck to dome length. The use of flow-diverting devices (FDs) such as the Pipeline embolization device (PED; Medtronic Neurovascular) and Silk (Balt Extrusion) for treatment of blister aneurysms is gaining in popularity and has the potential for becoming the standard of care. Complete occlusion is reported at six months follow up in many studies. It is important toFlow diversion technique is not completely complications proof. Need for dual antiplatelets in acute setting, stent thrombosis and stroke, ICA dissections during endovascular deployment, delayed obliteration of aneurysm are the possible drawbacks which needs to closed looked at. We have used Silk vista 4.25mm*20mm Flow diversion and post procedural period and three months follow up of the patient were uneventful. Flow diversion has found to have statistically significantly higher rate of long-term occlusion and a lower rate of retreatment, the difference in the rate of good neurological outcome was not statistically significant between groups.

Conclusions

Blood blister aneurysms pathophysiology is not fully understood , it is thought to be secondary to atherosclerosis, ruptured penetrative plaque and sheering forces. Because of very small size of these aneurysm multiple modalities of vascular imaging and sometimes repeated invasive imagings like DSA are needed for identification of these blisters. The extreme fragility of the wall of the aneurysm made it difficult to treat. Use of flow-diversion technology is associated with a higher rate of mid- to long-term occlusion and a lower rate of retreatment compared with other endovascular treatment options. However need for dual antiplatelets, thrombogenicity and delayed obliteration of aneurysm are the problems with flow diverters. However with the advent of novel less thrombogenic flow diverter stents it has potential to become Gold standard for management of blister aneurysms.

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India's First Bilateral Trigeminal Radiosurgery For Bilateral Trigeminal Neuralgia

Medicover Cancer Institute - Hi-tec City

Case Report

A 76 yr old female presented with thechief complaint of severe, sharp, piercing intermittent electrical-like shock pain on the left and right side of his face. The pain was triggered by talking, washing her face, eating and brushing her teeth. She was diagnosed with Trigeminal Neuralgia 17 years back and was on 3 types of pain medications. She was suffering from severe pain (VAS score 7-9/10) with low to moderate relief(Barrow Neurological Institute Pain score - V), >2-3 episodes per day leading to inability to eat,drink,talk and brush properly.

On physical examination, the patient appeared healthy, alert, and oriented with intact cognition. However, the patient had right-side facial swelling with poor oral hygiene with paroxysmal facial pain (R>L) -in V1,V2,V3 distribution triggered with touch, light touch and pressure. No other pathology was detected during the intra and extra-oral examination.

Considering the patient's age, current reduced quality of life, pain intensity and the ineffectiveness of the medication, the expected chance of a successful outcome of the surgical and radiological interventions was weighed against the potential surgical complications for the intervention and Radiosurgical (RS) treatment was recommended.

Procedure :

The patientwas counseled and consented.

She was immobilized in the treatment position in the advanced functional Q FIX-SRS mask. Planning MRI-Brain done thin cuts and CISS/Fiesta sequence data set was co-registered with RS Planning CT-Brain done thin cuts SRS protocol.

Organs at risk (OAR) were delineated on the co-registered MRI and consisted of the following structures: brainstem, optic apparatus (optic chiasm and bilateral optic nerves), eyes and lenses, and temporal lobe of the brain.

Targets (3 mm away from Root Entry Zone (REZ) of bilateral - right and left trigeminal nerve) generated for radiolysis. An 18-split arc plan was devised in Eclipse cone dose calculation (CDC) to deliver the single-fraction, using six MV-FFF photon beams (1400 MU/min), and a 5 mm diameter cone size. Dose–volume histogram (DVH) was generated in the TPS and subsequently evaluated to ensure that acceptable OAR doses were achieved as per TG 101.Before treatment, Winston–Lutz quality assurance (QA) with sub-millimeter isocentric accuracy and cone SRS point dose measurement was performed.

The patient received 95 Gy in a single fraction to isocenter, 3 mm away from Root Entry Zone- REZ of bilateral- right and left trigeminal nerve with 5mm cone collimator, 18 split arcs for each side, using 6D robotic couch, and triggered imaging using 6MV FFF high dose rate functional radiosurgery.

The patient's symptoms resolved post-Radiosurgery (Barrow Neurological Institute Pain score - II) without complications and there have been no reports of neuralgic attacks at the 1st and 1&1/2nd years follow-up visits.

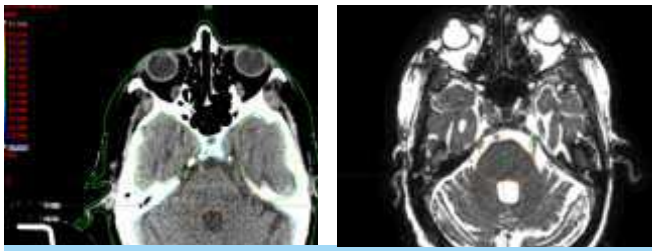

Figure 1: Trigeminal neuralgia target volume (right and left) and Isodose distribution on CT and MRI axial section

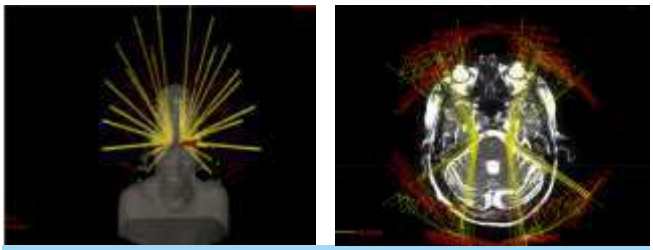

Figure 2: : 18 split arc arrangement (3D and axial view) for the treatment of right and left sided TN

Figure 3

Figure 4

Figure 3 : True Beam Linear Accelerator with 6D Robotic treatment couch

Figure 4: Cone collimator and Q-fix Mask

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Resistant Trigeminal Neuralgia Managed by CT Guided Gasserion Ganglion Block

Medicover Hospitals - MVP, Vizag

Case Presentation

A 62 yr old female with severe pain in the right half of the face since 6 years was diagnosed as Trigeminal Neuralgia and was on medical management to which she responded initially and later became resistant to it, so much so that she was not able to brush, eat, talk, sleep and touch her face due to sharp intractable pain.

She is a known diabetic, hypertensive, hypothyroid, seizure disorder, multi-infarct state and was admitted to the hospital with altered sensorium twice in a span of last 3 months, during which she was found to have hypoglycemic encephalopathy, septic shock on first admission and hypomagnesemia on second admission, for which she was treated conservatively and recovered completely.

MRI brain plain revealed multiple chronic lacunar infarcts in bilateral thalami, left caudate nucleus, both halves of the midbrain, and right cerebellum with mild to moderate periventricular and subcortical ischemic changes in bilateral frontal and parietal regions. 3D FIESTA MRI didn't reveal any significant abnormality.

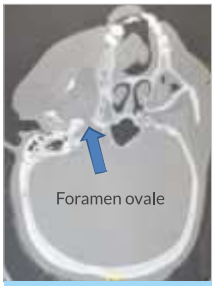
Presented with severe pain in the right half of face with swelling, which worsened while brushing, eating, chewing, and swallowing. She was unable to sleep for 3 days owing to severe sharp pain. The treating team converged onto the diagnosis of Trigeminal Neuralgia - resistant to conservative medical management and offered her options of microvascular decompression neurosurgery and percutaneous CT Guided Gasser ion Ganglion Block.

Patient and her relatives opted for CT Guided procedure, after understanding its risks and benefits. After pre-procedure work-up, sterile draping, local anesthetic infiltration at skin entry site, we successfully performed PERCUTANEOUS CT GUIDED GASSERION GANGLION BLOCK with precise positioning of 22G LP needle in medial aspect of the right foramen ovale at base of skull as was witnessed by patient as sharp pain along the right half of face, following which the neurolysis mixture constituting 1 ml (40 mg) triamcinolone + 3 ml of 0.5% bupivacaine + 2 ml of 2% xylocaine + 0.5mlcontrast was injected slowly.

A sterile and age was applied at skin entry site after removing the LP needle. She was immediately and completely relieved of her right facial pain on CT table and was able to eat and drink comfortably. There were no procedure related complications. She was observed for 2 hours and then sent home with the advise to check her blood sugars regularly, stop the oral analgesic medications and regular follow-up.

In clinical scenarios with co-morbidities, minimally invasive percutaneous interventional procedures like CT Guided Gasser ion Ganglion Block can be a boon, in relieving severe facial pain with low risk of complications. CT guidance during the procedure ensures better accuracy, safety and favorable response in relief of pain.

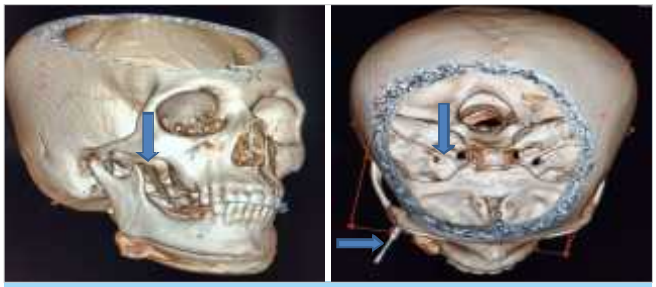
CT GUIDED GASSERIAN GANGLION BLOCK



Pre Procedure Showing Foramen Ovale

Intra procedure with needle tip in medial aspect of foramen ovale

Post Procedure With Drug Mixture Along With Contrast



CT volume rendered images showing precise positioning of needle in medial aspect of right foramen ovale

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Rescue TIPS Done Successfully I st Time In North Maharashtra

Ashoka Medicover Hospitals - Nashik

Case Presentation

A 55-year-old man with a history of Chronic Liver Disease (CLD) secondary to Non-alcoholic Steatohepatitis (NASH) presented to the emergency department for hematemesis and hypotension. He had pale tone and was tachycardia (130 bpm) and hypotensive (70/ mm Hg). According to the blood test, he was anemic (haemoglobin 3.2 g/dL).

One day prior patient was admitted to another hospital with same complaints and undergone UGI endoscopy and Endoscopic Variceal Ligation (EVL).

After adequate hemodynamic resuscitation with blood cell and terlipressin, the patient underwent upper GI endoscopy which showedactive spurting from esophageal variceal bleeding site which was not controlled by glue therapy and hemospray and patient referred for TIPS placement followed by liver transplant.

After 3 hrs all the necessary arrangements done and patient underwent successful TIPS placement. Hepatic venous pressure gradient (HVPG) pressure decreased significantly, the patient was clinically stable andhad no further drop in hemoglobin.

After some instances patient landed into hepatic encephalopathy and started anti encephalopathy measures followed by that patient was extubated on day 8. After day 15 patient was out of encephalopathy and discharged afterward. The patient is still in follow-up and doing great.

Conclusion

TIPS is a relatively safe and established procedure for the treatment of complications related to portal hypertension like bleeding. As the procedure is complex and need a clear understanding to avoid further procedure-related complications.

This case report illustrates that we can effectively perform complex procedures and improve patient outcomes and prognosis.

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High Risk Pregnancy

Navigating Dangerous TRIO of CRHD With Double Cardiac Valve Repair Complicating Pregnancy & Severe Anemia With Fetal Distress

Medicover Hospitals - Chandanagar

Case Presentation

A 26yr old female patient G3P2002 of rural background,presented to OPD, Medicover hospitals, Chandanagar, with pregnancy at 37w 2 days Period of Gestation(POG) with decreased fetal movements since one day. The patient was incidentally diagnosed to be pregnant at 30 weeks of gestational age, no blood tests were done. History of dry cough present for 3 days, No H/O fever or sorethroat. Antenatal period unbooked & unsupervised. Last childbirth was 2yrs back. During her second pregnancy,shehad a history of anemia, she had fullterm normal vaginal delivery, few days following her delivery she had history of Shortness of breath which was neglected by patient, later she presented to ER with severe SOB at Medicover hospitals Hitech city and was diagnosed to have KCO CHRD with Severe MR and MS, Moderate AR, severe PAH, MV REPAIR WITH 30# SJ MITRAL RING + AV REPAIR was done, she received 2 units of BT during her cardiac surgery. Post-surgeryshe was on antiplatelets, ramipril, Dytorplus, sildenafil, and bisoprolol 2.5 mg medication and was receiving penicillin injection once every 3 weeks. The couple were not using any contraceptive and were noncompliant to follow up with cardiologist. Patient was having unevaluated amenorrhea for2 years and was evaluated for abdominal distention where she was told to be pregnant. She stopped all cardiac medications by self and consulted us in view of decreased fetal movements.Antenatal Usg done in opd – Single live intrauterine fetus of 35 weeks with AFI 4- oligohydramnios, Biophysical profile BPP 4/8 (decreased AFI). A single loop of cord around fetal neck, placenta anterior body of uterus grade 3, on umbilical artery doppler there was increased S/D ratio ~4. NST was non-reassuring with fetal decelerations. Patient was clinically pale and her Hb 6.8g%.vitals PR: 110/min, BP 110/70mm hg.Cardiologist consultation was taken, 2D echo was done suggestive of Moderate MR with MS, mild PAH, mild AR, EF-60%. Diagnoses:26 yr /F G3P2002 at 37 weeks 2 days pog with k/c/o CRHD with double cardiac valve repair, with Severe Anemia witholigohydramnios, decreased BPP(4/8), poor Bishop score, NYHA 1 with fetal distress. After obtaining informed high-riskconsent and PAC, patient was taken up for Emergency LSCS with B/l tubal ligation under Spinal epidural anesthesia. Operative findings: Liquor - decreased in amount, clear, Live birth, boy, weight: 2.38kg, AP 8,9. Patient received Lasix and one unit of BT intraoperatively. Post-op, patient was shifted to ICU for observation, received one unit of BT. Patient's RFT showed low serum potassium levels, initiated potassium supplements. Hemodynamics were closely monitored and ambulation encouraged. Patient was treated conservatively with antibiotics, antiemetics, prokinetics, analgesics, multivitamins, anti-coagulants, antihistamines, thromboprophylaxis, diuretics, laxatives and all other supportive medications. Indue course, patient was hemodynamically stable and discharged under satisfactory condition.

DISCUSSION

In the described case, the challenges to be dealt were

- k/c/o CRHD with double valve repair
- Severe anemia
- Fetal distress

The trio forms a dangerous combination. Our plan of care was a Multidisciplinary team approach – high risk pregnancy expert obstetrician, Cardiology consultation,

PAC, Inform Intensivist, Arrangement of blood products with Continuous electronic fetal monitoring. Patient and attendants werenon complaint for there regular checkups with cardiologist. After explaining condition of patientand counselling, high risk-informed consent was obtained and patient was taken up for caesarean section and tubal sterilization.

Vigilant post-operative monitoring was done which includes Head end elevation, Oxygen inhalation, and Continuous monitoring of vitals (ICU care). Chest auscultation every half an hour, Restricted fluids by IV route, Strict Input output record, Analgesia, Antibiotics, Diuretics, Serum electrolytes monitoring, starting thromboprophylaxis 12 hours after CS, controlled Blood transfusions (in view of anemia), Mobilisation, Breastfeeding.

Pre-conceptional counselling have to be provided to all women with CHD which includes counselling about future pregnancies and contraception to prevent accidental and potentially dangerous pregnancies, obtaining correct and complete information for risk stratification, thorough evaluation. Issues to be discussed in pre-conceptional counselling include:

- Effects of pregnancy on mother's cardiac situation: risks to mother
- Whether risks will change with time or treatment
- Long-term outlook for the mother
- Risks to the fetus
- Management of anemia or other medical condition

Various concerns in pregnancy with heart disease include 1. Antepartum care – Cardiovascular and obstetric 2. Avoidance of drugs harmful to baby, 3. Fetal growth and development, 4. Labor – heart and obstetric considerations, 5. Antibiotic prophylaxis, 6. Postpartum care, 7. Contraception.

Conclusion

The young female was having high risk pregnancy and the case was highly challenging with the trio of CRHD with double valve repair, severe anemia and fetal distress. The case got handled successfully with precision and continuous care with a collaborative effort.

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Cesarean Scar Ectopic Pregnancy

Medicover Hospitals - Karimnagar

A patient of age 30yrs female, presented to ER with active bleeding P/V underwent dilation & curette after spontaneous abortion with? retained placenta in a peripheral hospital. Abandoning procedure of D&C as gush of bleeding occurred, they did P/V packing and attached one PRBC and was referred to Medicover hospitals. Patient was conscious and coherent, with her

vitals stable, she was in G3 P2 L2 with 2 previous LSCS, P/A uterus – 20weeks.

After appropriate investigations, ultrasound scan revealed Cesarean Scar ectopic pregnancy. Patient and her family were explained about possible complications and consented for surgical management. Surgical plan was Scar resection with uterine reconstruction under general anaesthesia. Reserving 3PRBc, 3 FFPs patient was taken up for surgery. Under general anesthesia proceeded for D&C sudden active bleeding started P/V packing was done and abdomen opened. On table, diagnosis was confirmed as exophytic type of scar ectopic. Under aseptic conditions abdomen opened in layers, after midline linear incision, bladder separation was done, bilateral uterine arteries ligation done, adherent placental tissue was removed. Hemostasis secured. Proceeded with uterine reconstruction abdomen closed in layers with drain left in-situ, through out procedure vitals were stable. Patient shifted to ICU for 48 hours. On POD 0 PRBC and FFPs transfusion was advised. There was no active bleeding P/V, patient vitals was stable recovery was uneventic was discharged on POD-5. The post-operative clinic review confirmed full recovery of the patient.

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Occipital Removal Of Comminuted Fracture Fragments + Contusectomy + Duraplasty + Cranioplasty

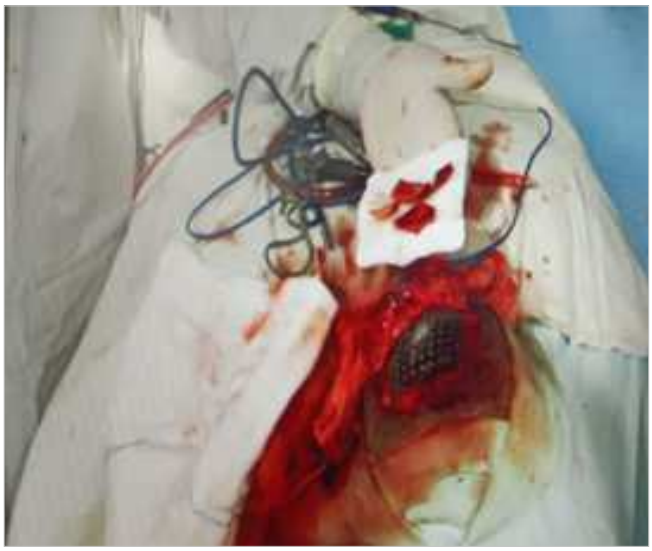
Medicover Hospitals - Srikakulam

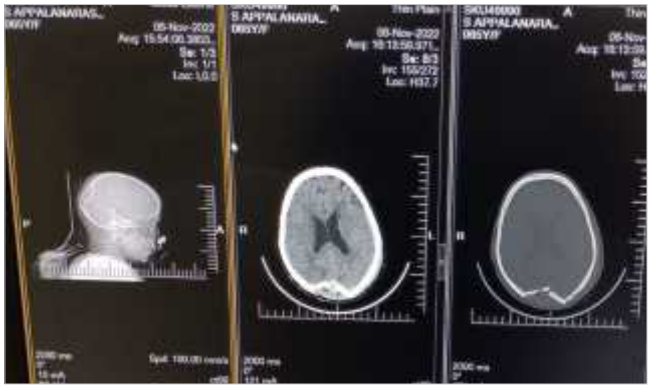
Case Presentation

A 79 yr female had alleged h/o of RTA, O/E findings : Ear & Nasal bleed, 1 episode of seizures, vomiting, and Loss of consciousness got admitted to Medicover hospital (Srikakulam). All necessary investigations were done and, CT brain showeda depressed skull fracture with extra Dural hematoma + laceration of 5 X 5 cm on the occipital region. Post complete evolution he was planned for occipital reversal of comminuted fracture fragments + contusectomy + duraplasty + cranioplasty surgery on 7/11/2022.

Procedure: - coronal flap raised over the occipital region periosteum elevated. Multiple fractures were reduced with help of a drill. Homeostasis secured. Superior sagittal sinus repair is done. The defect was closed with titanium mesh, and a surgical drain was placed, wound was closed in layers.

Post-procedurepatient was managed conservatively on iv antibiotics, iv antiepileptic, post-operatively patient condition was uneventful, &was discharged in a stable condition.





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Perforated Jejunal Diverticula In The Background Of Tuberculosis In A Young Man: A Case Report

Medicover Hospitals - Vizianagaram

Case Presentation

A 25yr old male patient presented to our emergency department with sudden onset pain in the lower and upper left abdomen. There was no relevant drug or family history. The pain was worsening over the past 24 h and radiating to the right lower quadrant. The patient reported nausea, bilious vomiting, and the absence of stool since the start of the pain. The vital signs were slightly abnormal, with a sinus rhythm of 102 bpm, blood pressure of 110/80 mmHg, and a body temperature of 37.8 C. On physical examination, sparse peristalsis was auscultated over the abdomen. The pain was most prominently in the periumbilical region, with guarding and rebound tenderness. Laboratory results showed a leukocyte count of 16000/mm3 and a C-reactive protein level of 126 mg/l. A computed tomography scan (Fig. 1) showed signs of air centrally in the mesentery, just cranial from the umbilicus, surrounded by enlarged lymph nodes. The radiology report described a diverticulum in the small bowel, most likely a Meckel's Diverticulum. No further abnormalities were detected, especially the absence of colonic diverticula or other non-inflammatory processes. The patient underwent a laparotomy which macroscopically revealed the diagnosis of Perforated JD (Jejunal Diverticula) (fig.2).

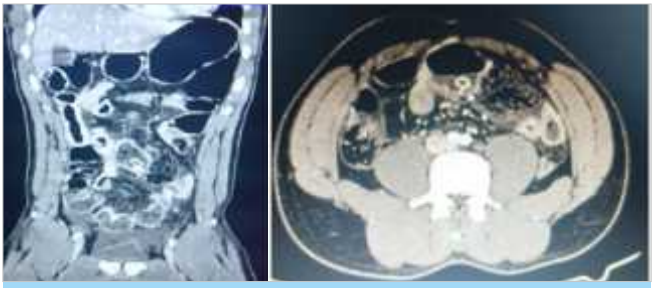

Fig 1: Axial (left) and coronal (right) view of CECT abdomen showing jejunaldiverticula with large enterolith-induced perforation evidenced by extraluminal air

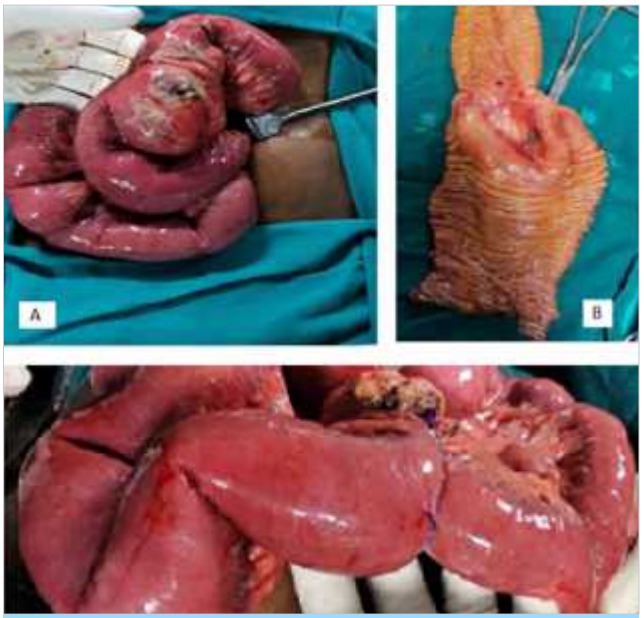

Fig 2: A. jejunal diverticula with perforation
B. cut section after resection
C. final appearance after reconstruction

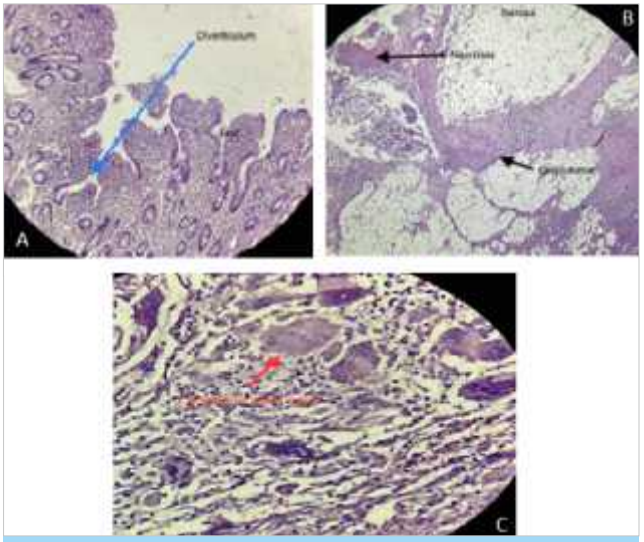

Fig 3: A. H&E 4OX figure shows diverticula with perforation B. H&E 4OX shows caseating granulomas in the muscle layer and serosa. C. H&E 400X shows Langhans giant cells, lymphocyte cuff

The patient had an uncomplicated postoperative course and was allowed oral liquids on a postoperative day POD-1 and an oral soft diet on POD-3. He was discharged in satisfactory condition on POD-4. The patient was doing well in the follow-up period and his skin sutures were removed on POD-8.

Histopathology of the resected jejunum showed Mucosa, submucosa, muscle layer, and serosa. Mucosa shows outpouching with the tip of the diverticula located in the submucosa. Caseating granulomas consisting of langhan giant cells, caseous necrosis and lymphocytes located in the muscle layer and serosa.

Features are suggestive of jejunal diverticula with underlying tuberculosis.

Perforation with acute serositis and extensive fibropurulent exudates along with inflammation in the mesentery. A screening colonoscopy was done after two weeks of discharge to rule out diverticulosis, which revealed a normal study up to the terminal ileum. Screening esophagogastroduodenoscopy was done, which showed normal study up to the second part of the duodenum. He was started on anti-tuberculosistreatment (category I) and was kept on 3-month follow-up.

CONCLUSION

Diverticular disease has to be suspected in patients presenting with unexplained malabsorption syndrome, vague abdominal pain/discomfort, or chronic anemia. Multiple jejunal diverticula are more common than single diverticulum. Complications like bleeding and perforation are seen in 15% of individuals. The treatment of complicated diverticular disease is the resection of the involved bowel segment with anastomosis. Our case was rare because the patient had a single jejunal diverticulum with free perforation. High index of suspicion is required to diagnose a small bowel diverticular perforation. On follow-up, upper and lower GI endoscopy is mandatory to rule out diverticulosis and post operative histopathological assessment is essential to rule out small bowel malignancy.

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Anaesthesia Management Of Situs Inversus Totalis Patient With Post - CMV For Mitral Valve Replacement: A Case Report

Medicover Hospitals - Nizamabad

Case Presentation

A 53-year-old female patient was scheduled to undergo elective mitral valve replacement due to severe mitral stenosis. The patient underwent closed mitral valvotomy 20 years ago because of mitral stenosis. Now patient again presented with shortness of breath while doing mimimal work (NYHA grade 3).

In the pre-anesthetic evaluation, On Inspection there were two distinct 1 cm scars on right hemithorax, below 6th intercostal space in mid axillary line and another on right hypochondrium (suggestive of closed mitral valvotomy in right hemithorax).

Physical examination revealed apex beat was on the right fifth intercostal space in the midclavicular line; heart was auscultated on the right side of the chest, with mid diastolic murmur. Her pulse rate was 82beat/min, blood pressure 110/50 mmHg, and body temperature was 36°C. Chest X-ray (Figure 1) and ultrasound abdomen showed situs inversus totalis with fundal gas shadow on the right side. A preoperative electrocardiogram (ECG) was conducted with chest leads in their normal positions; it showed a negative P wave in the I and aVL leads and a positive P wave in the aVR lead, which is a typical right-axis deviation pattern (Fig. 2a). Another ECG was then conducted with the placement of the right lead reversed which showed normal R wave progression from V1 to V6 (Fig. 2b). 2D Echo confirmed dextrocardia with severe mitral stenosis (Figure 3).

Fig. 1. CXR showing dextrocardia and fundal gas shadow on right side

Fig. 2 a. ECG with normal lead placement

Fig. 2 b. ECG with reversal of leads

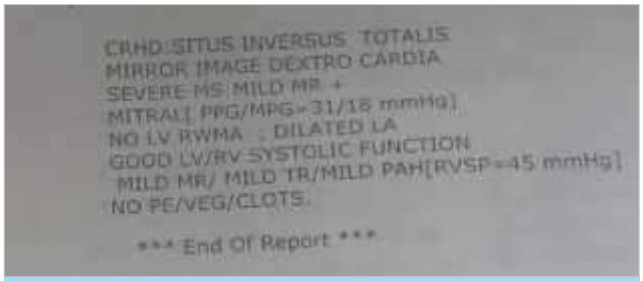

Fig. 3. 2D - ECHO report

Upon the patient's arrival in the operating room, ECG leads were applied in reverse (Fig. 4) to reduce confusions over the ECG findings and unnecessary treatments to correct abnormal ECG results produced by improperly placed leads. Other standard institutional monitoring methods were applied, including left radial arterial cannulation. Anesthetic induction was performed according to institutional guidelines and

central venous catheterization was performed via the left internal jugular vein to guarantee a direct approach to the right atrium without crossing the midline. Catheterization was successfully performed uneventfully on the first attempt. The postoperative chest X-ray revealed that left IJV cannulation was directly into right atrium (Fig 5).

Fig. 4. ECG leads placed reversely

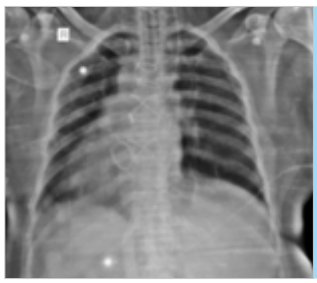

Fig. 5. Post-op CXR showing left IJV straight into RA

After complete preparation and draping, cardiac surgery was started with median sternotomy. After opening SVC, IVC and RA were seen on the left side and LV and AORTA on the right side. Aortic and venous cannulation was done withsurgeon standing on right side, but MVR was performed while standing on the left side of the patient. The surgery was completed without any incident.

After surgery, the patient was transferred to the intensive care unit. The patient was stable during the intraoperative and postoperative period. She was extubated after 4h of mechanical ventilation. The patient was transferred to the general ward after spending two days in the intensive care unit and discharged on the seventh day after the surgery without any complications.

Patients with situs inversus totalis are difficult to anesthetize and monitor while under anesthesia. However, these patients can be managed more safely with careful preoperative planning and increased vigilance. This case was reported to describe a few key considerations for the proper anesthetic management of a situs inversus totalis patient during cardiac surgery.

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A Rare Case Report Of Scar Endometriosis

Medicover Woman & Child Hospitals - Hi-tec City

Case Report

A 23-year-old Somalian woman came with the presentation of pain and discomfort at the previous LSCS (Lower Segment Caesarean Section) scar region. The Patient's Chief complaint was intense pain during menstruation which is affecting her daily routine. Along with the pain, patient also expressed concern about her inability to conceive. She is P1 L delivered by emergency LSCS in view of Cephalopelvic disproportion (CPD) at Somalia, in 2017.

Physical examination revealed a puckered pfannensteil scar, associated with a mass that is firm in consistency measuring 8x6 cm in size just above the scar, which is tender on touch. The cervix is pulled upwards and restricted mobility in the uterus is noticed.

On examination, severe suprapubic tenderness was noted, and a preliminary diagnosis of scar endometriosis was made clinically. For confirmation of the same, patient was advised to go for an MRI pelvis which revealed a large T2W and STIR heterogeneously hyper intense and T1W hypo intense lesion with restricted diffusion seen in the anterior abdominal wall at the scar site, measuring 8.2x3.8x2.8 cm (TRxAPxCC). The lesion is found adhered to the anterior wall of uterus. The uterus is elongated, the fundus is seen adhered to the anterior abdominal wall and bilateral ovaries were normal in size but adhered to the anterior abdominal wall.

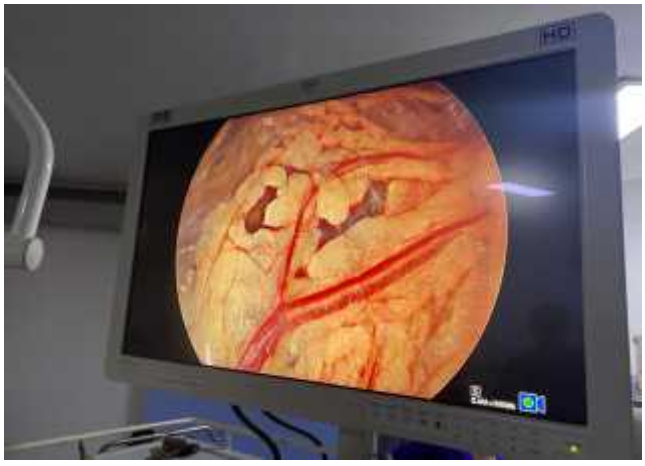
Exploration Laparoscopy adhesiolysis with scar endometriosis excision was planned. To our surprise the uterus with ovaries and fallopian tubes was completely adherent to the rectus abdominas muscle with distorted anatomy, adhesiolysiswas done on a suspected mass. Scar endometriosis which was extending upto the rectus sheath and above from the lower uterine segment of theuterus then decided to explore the previous abdominal scar. A huge mass of scar endometriosis excised approximately measuring 10x9 cm.

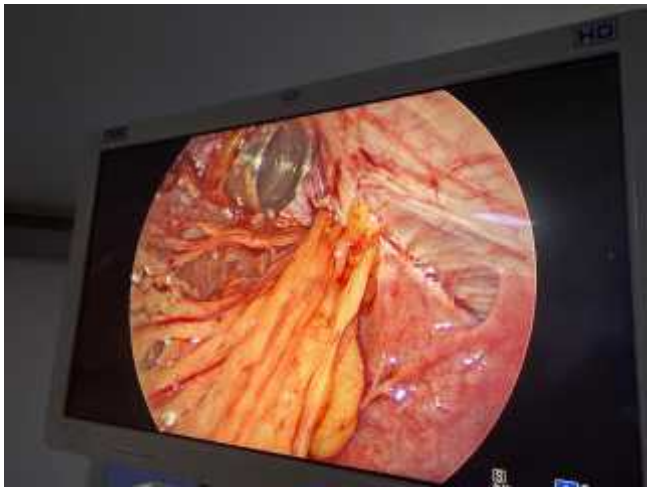
After wide excision, muscle loss of rectus abdominus and rectus sheath was observed. The uterus and ovaries are freed from the abdominal wall. Reconstruction was done with muscle flap further reinforcement was done with mesh repair.

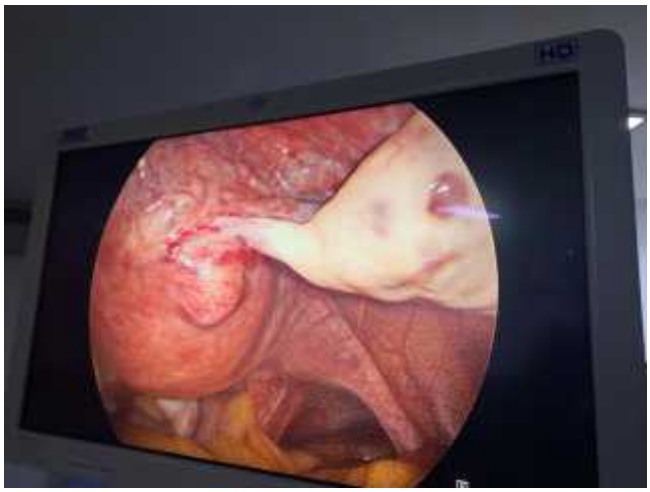
The patient responded well to the operation and was discharged on the fifth POD with good abdominal wall support. The final report revealed with HPE report as scar endometriosis. Three months of anti progestin medication were given to the patient, and her subsequent periods showed a complete reduction in pain. The patient was totally asymptomatic.

Scar endometriosis is a rare condition, that presents in women who have undergone previous abdominal (or) pelvic procedures. The incidence is 0.03% - 0.15% of all cases of endometriosis.

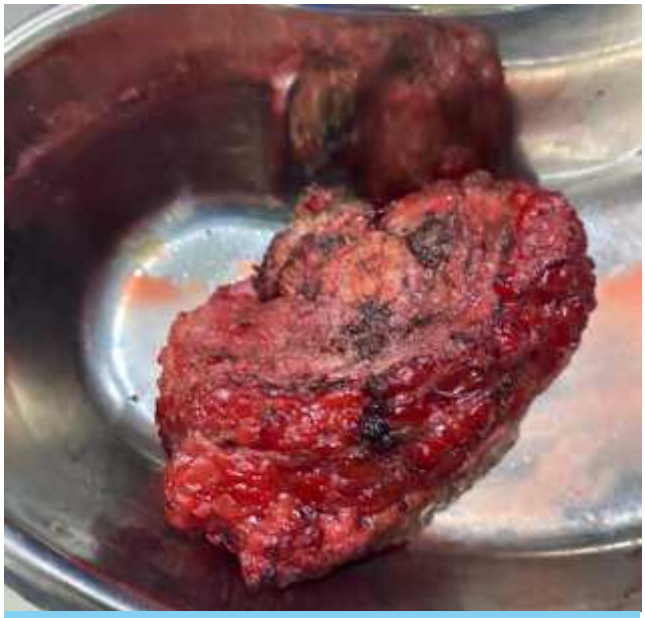
The most accepted theory is the iatrogenic transplantation of endometrial implants to the wound during an abdominal (or) pelvic surgery, management includes only surgical excision followed by hormonal suppression.







Plasted uterus and ovaries
to the abdominal wall



Excised Scar Endometriosis

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Common Tumor At Uncommon Site - Endobronchial Lipoma

Medicover Hospitals - Kakinada

Introduction

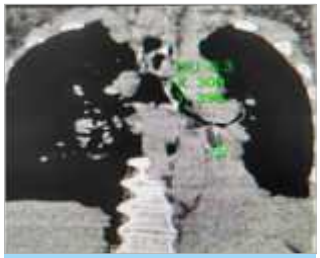
Endobronchial lipomas are rare benign lung tumors that can cause bronchial obstruction and parenchymal damage. While an uncommon etiology, they are often misdiagnosed due to a clinical presentation similar to obstructive pulmonary pathologies such as COPD and asthma.

Here we present another unique case of endobronchial lipoma presenting with left lower lobe collapse. A 65 yr old femalecame to OPD with complaints of left chest pain and difficulty in breathing for 5 days. She had a history of similar breathlessness on and off since 12 yrs, for which she has been diagnosed as Bronchial asthma and using as on needed medication.

On radiological evaluation – x-ray showed left retrocardiac triangular opacity. CT chest showed left lower lobe collapse with compensatory enlargement of the left upper lobe. Furtherbronchoscopic evaluation showed a polypoidal lobulated growth in the left main bronchus and completely filling the left lower lobe bronchus causing a luminal obstruction. Milky fluid extravasated from the lesion on touch. In view of the smooth polypoidal nature, hypoattenuation on CT and long-standing disease history, a provisional diagnosis of Endobronchial lipoma was made.

After counseling the patient and family members regarding the pros and cons of endobronchial therapy, she was taken up for bronchoscopic cautery debulking. Under general anesthesia using flexible bronchoscopy-guided electrocautery snare polypectomy was done and the base of the lesion was cauterized. A 2x2 cm oval, soft lesion with yellow glue-like material inside and oozing milky fluid excised. Luminal patency was restored and patient wasextubated on the table.

Histopathology examination showed encapsulated fatty growth confirming the diagnosis of Endobronchial lipoma.Post-procedure follow-up, the patient was asymptomatic and off her regular bronchodilators.



Hypoattenuating lesion in left lower lobe bronchus

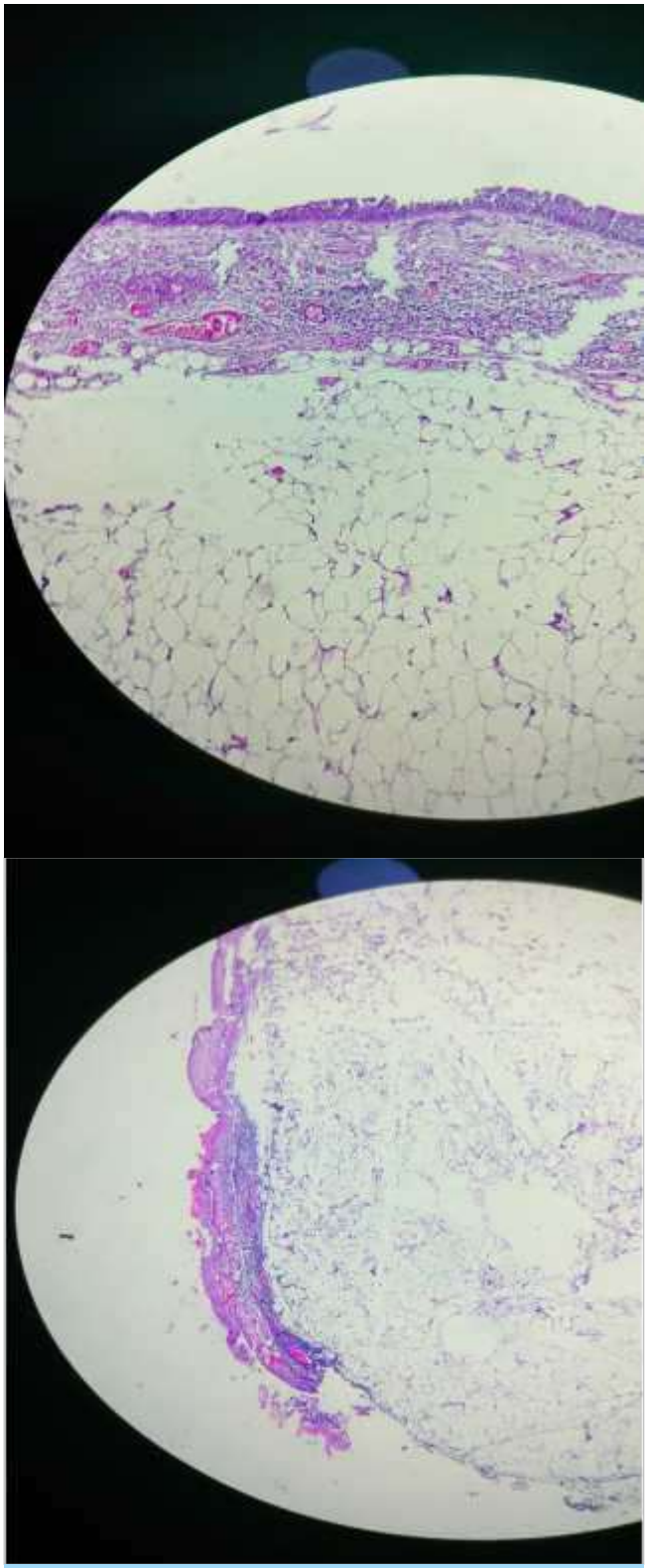
Endobronchial polypoid growth in left main bronchus

Snare polypectomy

Left lower lobe collapse

Complete luminal patency restored

Yellow soft tissue with a well-defined capsule



Pseudostratified ciliated columnar endobronchial mucosa with sheets of mature adipocytes in the submucosa.

Conclusion

Our patient underwent debulking and cauterization, similarly following the trend of the other reported bronchoscopic mass resections seen in the case review. More invasive procedures, like lobectomies, were reserved for cases in which there was irreversible parenchymal damage, suspicion of the diagnosis, or if bronchoscopic resection was not possible.

Even though endobronchial lipoma is rare, it can mimic malignancy and lead to significant complications such as progressive dyspnea and subsequent lung infections related to endobronchial obstruction. There is a significant need to investigate endobronchial lesions as endobronchial lipoma should remain in the differential diagnosis.

Contributor

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Gastrointestinal Lymphomas A Rare Heterogeneous Group Of Malignancies

Medicover Cancer Institute - Nellore

Case Presentation

A 56 yr old male presented with diffuse abdominal pain and painful defecation for 3 weeks. He underwent a colonoscopic examination which revealed multiple sessile colonic polyps seen in descending colon and caecum with rectal growth. Biopsy of the polyp is suggestive of high-grade dysplasia.

He underwent a Colectomy, ileoanal anastomosis, operative findings of lower bowel polyposis with multiple mesenteric lymph nodes, no ascites, and liver normal. Resected specimen Histopathologic examination [RES776158] showed colonic lamina propria and submucosa showed dense lymphoid infiltration, and lymph nodes also showed morphologically similar lymphoid cell infiltration s/o lymphoproliferative disorder.

IHC: CD3, 5, 7, 4 and 8 - positive in tumor cells, CD20,30 and CK- negative Ki67- 75-80% s/o CD30 Negative peripheral T NHL.

PET CT: Metabolically active bilateral cervical, mediastinal, axillary and mesenteric lymph nodes, metabolically active thickening of rectum and stomach, bilateral pulmonary nodules.

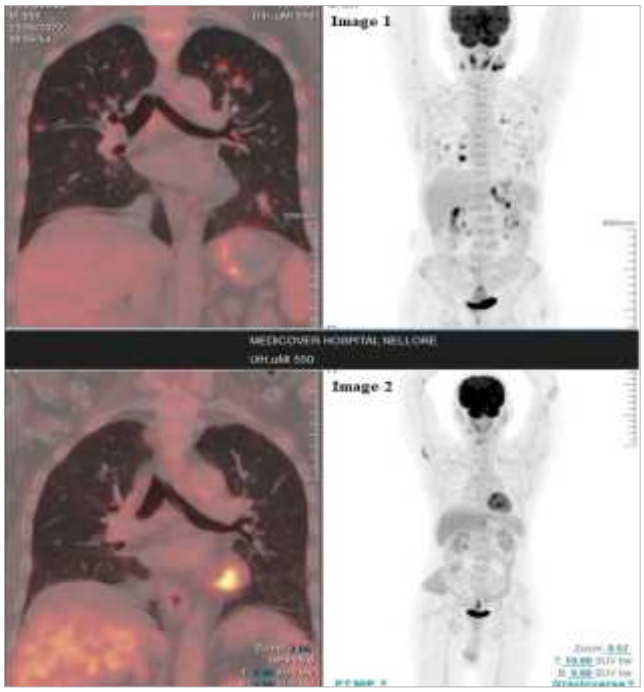
He was diagnosed to have Colonic peripheral T Non-Hodgkin's lymphoma Stage IVA.

The standard of care for Peripheral T NHL patients is multi-agent chemotherapy induction followed by consolidation with stem cell transplantation.

After explaining the disease condition, he was treated with 6 cycles of CHOP chemotherapy consisting of Cyclophosphamide,Adriamycin, vincristine and Prednisolone drugs. He tolerated treatment well and completed last cycle in September 2022. His end-of-treatment PET CT: Near complete metabolic remission.

He was advised to undergo Autologous stem cell transplantation.

Pre-treatment PET [Image 1] Post-treatment PET [Image 2]



Primary gastrointestinal lymphoma occurs in between 1 to 4% of all gastrointestinal malignancies. The gastrointestinal tract is the most common site of extranodal lymphomas, and colorectal lymphoma comprises between 10 to 20% of primary gut lymphomas in a larger published series. Primary colorectal lymphoma accounts for only about 0.2% of large intestinal malignancies. Most such lymphomas are B-cell origin, and T-cell lymphoma of the gastrointestinal tract is extremely rare.

The incidence of T-cell lymphoma is 0.5-1 per million per year [3], and most of the cases are diagnosed in an advanced stage. The 1- and 5-year survival rates are 31-39% and 8-20%, respectively [4]. Most gastrointestinal lymphomas have a B-cell origin, while T-cell lymphomas are extremely rare in the gastrointestinal tract [5]. Colonic lymphomas are seen in patients with inflammatory bowel disease [IBD] but our patient in contrast did not have any such history suggestive of IBD. They usually present with ulcers in colon but polypoidal presentation is not reported in the literature.

Conclusion

Gastrointestinal lymphomas are a rare heterogeneous group of malignancies with variable clinical behavior. They should be considered in the differential diagnosis in a patient presenting with polyps. The correct diagnosis is the key for the better outcome.

Gastrointestinal lymphomas are a rare heterogeneous group of malignancies with clinical behavior ranging from indolent nature to aggressive nature. They are difficult to diagnose based on histopathology alone, hence Immuno histochemistry [IHC] and molecular testing are must for appropriate diagnosis.

Contributors

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MRSA Sepsis With Septic Shock With ARDS - Recipe For Catastrophe!!

Medicover Hospitals - Aurangabad

Case Presentation

Mr. Pradeep Tripathi, 35 years old with no known comorbidities was brought to Medicover Hospitals Aurangabad, with a history of right foot silencer burn, and was self-treated at home. History of fall followed by a left foot injury, which gradually progressed to abscess formation. On admission to a local hospital, he presented with shock so was started on inotropes and vasopressors and was electively put on Invasive Mechanical Ventilation (IMV). He was diagnosed with **left lower limb cellulitis with septic shock.** Incision and Drainage (I&D) of the left foot was done on 07/09/2022 and was referred here for further management.

Here continued IMV support and high dose noradrenaline and vasopressin for which invasive monitoring was done in form of arterial and central lines. Labs were suggestive of raised WBC, slightly deranged LFT's, normal KFT's and raised procalcitonin, with normal serum amylase and lipase.

Chest x-ray and USG abdomen NAD.2 D Echo - mildly dilated LA/LV, LVEF 35%, global hypokinesia, IVC dilated and non-collapsing suggestive of **septic myocarditis.** Blood cultures were sent and was empirically started on higher antibiotics - Carbapenem, Colistin and Doxycycline.

Surgeon's reference was seeked and debridement of the left foot was done followed by daily dressing.

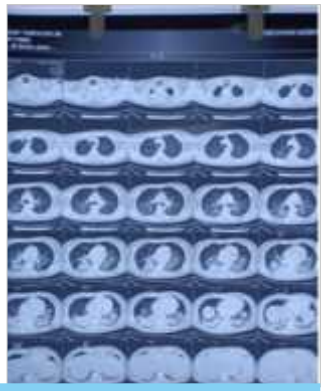
On day 2 of admission, the patient continued to have fever spikes and was desaturated on IMV (40%).Chest x-ray was s/o bilateral shadows. Suggestive of Acute Lung Injury. DENGUE positive, H1N1 not detected. ANA dsDNA and p-ANCA was sent in view of finding alternative etiology and were negative.

On day 3 patient continued to have high-grade fever (105 F), neck stiffness and delirious. MAP ~75-80mmHg with supports. Good urine output. Neuro-physician opinion was sought for the same and he suggested MRI Brain which was normal. CSF routine microscopy - normal. CPK-total - raised (706 IU). Hence suspected as **Tetanus** and empirically was started on **Injection Tetglob and Injection Metronidazole.** HRCT chest was s/o bilateral consolidation. CT abdomen s/o fatty liver. Blood c/s- **Staphylococcus. Aureus (MRSA)** sensitive to Tiecoplanin, Linezolid, Tigecycyline, Minocycline, Vancomycin, Daptomycin. Injection Targocid (Tiecoplanin) was added along with ongoing antibiotics. Urine culture was s/o **Candida albicans** sensitive to Caspofungin, Anidulafungin, Fluconazole, and Voriconazole. Hence Anidulafungin was also added I/v/o continuous high-grade fever.

Gradually patient started showing improvement and inotropes were tapered off. Weaned from invasive ventilation and was extubated on the day 6th of admission. The patient started recovering and was hemodynamically stable with the healing of the left foot wound and hence was discharged.

X-ray of patient on the admission

X ray on day 2 showing bilateral shadows



CT scan of the patient

Left lower limb cellulitis

Importance of this case

- Patient's recovery in spite of high inotropes (Norad and Vasopressin) and IMV- depicting good ICU teamwork.
- Importance ofsource control in septic patients as per surviving sepsis guidelines 2019
- Extensive cellulitis with no obvious causes
- Importance of Multidisciplinary approach
- Hospital-acquired MRSA sepsis with septic shock with ARDS.

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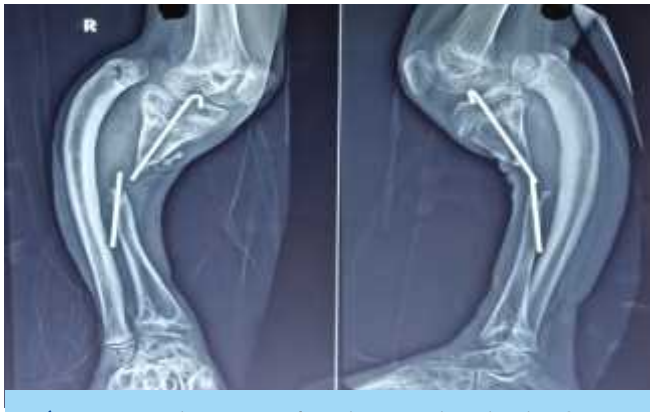
Congenital Pseudoarthrosis Of Tibia Treated With Ilizarov Ring Fixator

Medicover Hospitals - Begumpet

Case Presentation

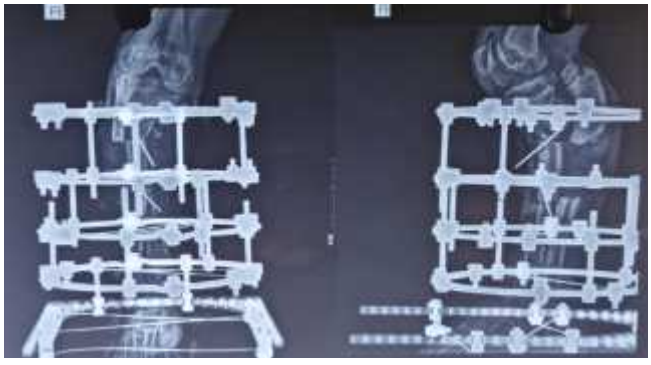
A 11 year old girl child was brought to the OPD by her father from Somalia with complaints of unable to walk due to deformity and shortening of her right leg since birth. S he was operated in her country once (details unknown). After detailed history, clinical and radiological evaluation, patient was diagnosed with Congenital Pseudoarthros is of Tibia.



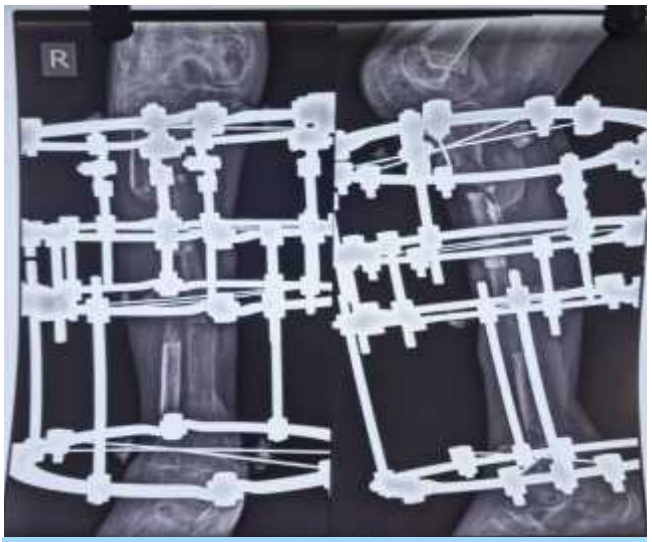
a) Preoperative X-ray showing K Wires in situ from previous surgery done elsewhere

Surgical Procedure

A Vascularised fibular graft transfer with Ilizarov ring fixator and corticotomy for lengthening was done.

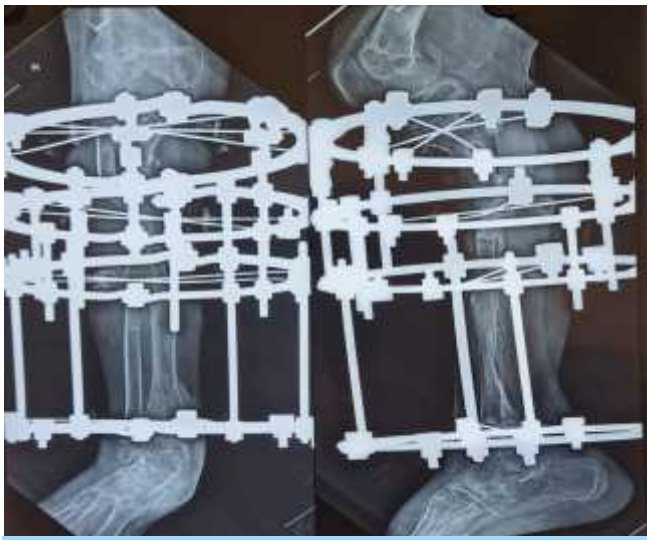


Gradual distraction carried out at the distal corticotomy site and transfixing K-wires were removed at 6 weeks



b) Xray after 3 months of post operative - good regenerate seen

The distractions were carried out till 4 months of post operative period and stopped thereafter for consolidation of regenerate. 8.5 cms of bone length was achieved and residual shortening is 4 cms.



c) Xray at 6 months of post OP

Ilizarov ring fixator was removed at 6 months post op after clinical testing and radiological evaluation of union. Post removal, patient was given a walking PTB cast for 1 month and PTB Brace for subsequent 2 months.

d) Immediate post frame removal X-ray

e) 1 month follow up X-ray with PTB brace and shoe raise

Conclusion

congenital pseudoarthritis of the tibia (CPT) is rare congenital anomaly occurring 1 in 190,000 live births. It is one of the rare causes of limb shortening as well.

Aim of treatment in our case was to achieve union and length simultaneously. We could achieve union and maximum length of 8.5 cms. The residual shortening will be addressed in the next stage which is planned after 9 months. Patient is able to walk full weight bearing with walker.

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Glanzmann's Thrombasthenia

Medicover Woman & Child Hospitals - Vizag

Case Presentation

A child presented to the ER with complaints of high-grade fever since 2 days, several episodes of Haemetemesis since one day and blood in stool since I day. He was a Known Case of Glanzmann's thrombasthenia at 7yrs of age. Outside Reports CRP-46; dengue IgM positive; Platelet - 86,000 ? 1.2LChild O/E- pallor+, febrile, sick look +, ecchymotic patches on knees. Abdomen on palpation soft tender hepatomegaly &tenderness in Left hypochondrium. Child wasadmitted to PICU and started treatment with Inj Pipzo, Inj Ondem, Inj Pantop loading dose followed by Continuous infusion, Inj Kabimol, Syp Sucral . Inj Tranexa was given in order to stop any ongoing bleed in case. 1 unit of PRBC was transfused uneventfully. Platelet count was low thus 5 units of RDP was transfused. USG Abd showed hepatomegaly with collapsed IVC.

The child had severe cough & fever spikes thus T Azee added, Sr. Ferritin& troponin I were sent which suggest a strong positive for covid infection so the child was started with IVIG and pulse dosing of inj Mps. Hematologist consultation was obtained in b/w which advised to stop tranexa in view of hematuria and continue 1unit of SDP /4unitsof RDP till bleeding manifestation stops.

Child got worse with continuous episodes of vomiting & altered stool & continuous fever with ? CRP. So blood culture, urine culture sent. Inj pipzo replaced by inj mero &inj doxy& inj Oflox added. Child was done 2D echo in suspect of kawasaki disease but there wereno evidence of coronary artery aneurysm. Fever panel work up was done and were all negative. The child has improved, fever spikes reduced &vomiting improved, child become afebrile from DOA-4 and orals started. Stool colour became yellow thus shifted to ward. After one day of observation under stable condition patient planned for discharge.

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Dorsal Onlay BMG Female Urethroplasty

Medicover Hospitals - Sangamner

About 10% of women who have urethral dilation have the uncommon treatment of a female urethroplasty. Very few women experience female urethral strictures, which can have significant symptoms and decrease a patient's quality of life. The urologist finds it challenging to conduct because of the disease's rarity and the potential for functional complications. On the other hand, a professional urologist and the use of good diagnostic modalities will enable the proper technique (Flap Urethroplasty) to be carried out while adhering to Pre-op and Post-op care recommendations. Such urethroplasties have an extremely high success rate. In the event of recurrence following dilatation, female urethroplasty must be done since it offers excellent cure rates.

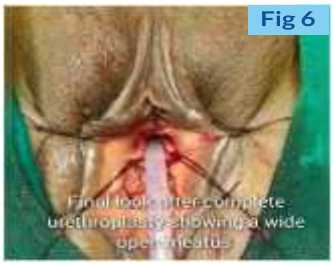
Case Presentation

A 37 year old female presented to our outpatient department with a history of repeated urethral dilatation for obstructive LUTS for the last 2 years. Her frequency of dilatation increased recently for the last 3 months. Her MCU was done and was suggested mid and distal urethral stricture (Fig1).

Fig 1 – Pre-op MCU

Fig 2 – Post surgery follow up MCU at 3months

Uroflowmetry also suggested a poor flow of 4.2 ml/sec with a voided volume of 285 ml. Routine blood investigations were normal except for the urine culture which showed the growth of E. coli of more than one lakh. Antibiotics were started according to the culture. Patient was advised reconstructive surgery and was explained about the pros and cons of the procedure. She underwent dorsal onlay graft urethroplasty using the buccal mucosal graft (BMG) (Fig 3- 7). Her foley catheter was removed after 21 days and she voided well with good satisfaction and without any residual urine. Follow-up MCU (Fig 2) and Uroflometry after 3 months suggested a non-obstructive voiding with a good flow of 25ml/sec. till her last follow up at 12 months, she maintained a good urinary flow and there were no symptoms of any urinary obstruction.



Conclusion: Dorsal Onlay BMG female urethroplasty is a safe, efficacious, and reliable treatment option for stricture urethra in females. The technique is easy to learn and has a low complication rate.

Contributor

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Beta Keto-Thiolase Deficiency

Medicover Hospitals - Navi Mumbai

Case Presentation

1-year3-month-old female child, first by birth order, weighing 8.5 kilogram born out by non-consanguineous marriage admitted in PICU on 17/12/2022 with chief complaints of Vomiting and Poor appetite for 4 days, loose stool for 2 days and breathlessness for 1 day. For which, child had received symptomatic treatment on opd basis from outside.

As her symptoms increased and started to have irritability, dehydration and breathing difficulty so she got admitted at an outside private hospital and received dehydration correction. Her blood gas was suggestive of severe metabolic acidosis with (PH:6.9,Hco3 , Pco2: 9, lactate 0.6) so referred to medicover hospital for further management.

She has acidotic breathing, irritability, moderate to severe dehydration with normal blood glucose, her serial blood gases were suggestive of severe metabolic acidosis, serum lactate was normal, and high uric acid level (11.4 mg/dl), serum ammonia 49.8 mcg/dl&urine ketone was 3 + in view of these reports and clinical findings child suspected to have an inborn error of metabolism.

Child was intubated and put on a mechanical ventilator, started on a metabolic cocktail (multivitamins, SYP.carnisure, Inj. vit B12, cap co Q), Iv bicarbonate corrections and bicarbonate-based iv fluids. As acidosis was severe and persistent in spite of bicarbonate correction so started on peritoneal dialysis with bicarbonate based PD fluid. After starting the above measures, the bicarbonate level started to improve gradually. In view of suspected IEM, metabolic blood & urine screen was sent (NBS Tetra, Urine GCMS) and a report was suggestive of Beta-ketothiolase deficiency/2-Methyl-3-hydroxybutyryl CoA dehydrogenase deficiency. Clinical exome sequencing for HSD17B10/ACAT1 gene mutation analysis which was positive that also confirmed the diagnosis.

Serial blood gases, as well as serum electrolytes monitoring was done. Acidosis resolved gradually on day 3 of PICU stay meanwhile she also received PRBC transfusion in view of low hemoglobin. As she was maintaining her vitals and acidosis resolved so sedation stopped and ventilator support tapered gradually.

As she was not fully awake after stopping sedation for 48 hours so ventilation continued on minimal settings. Her sensorium improved gradually and she was responding to parentsso she extubated to room air on day 5 of PICU stay and PD catheter is also removed. On day 4 of PICU stay child started on special diet (low protein diet, maltodextrin and fruit juices) through NG tube with gradual increment and shifted to oral feed eventually.

Child oral intake has been improved, hemodynamically stable, urine ketones are nil so she had discharged on required multivitamins supplementations and a special diet.

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