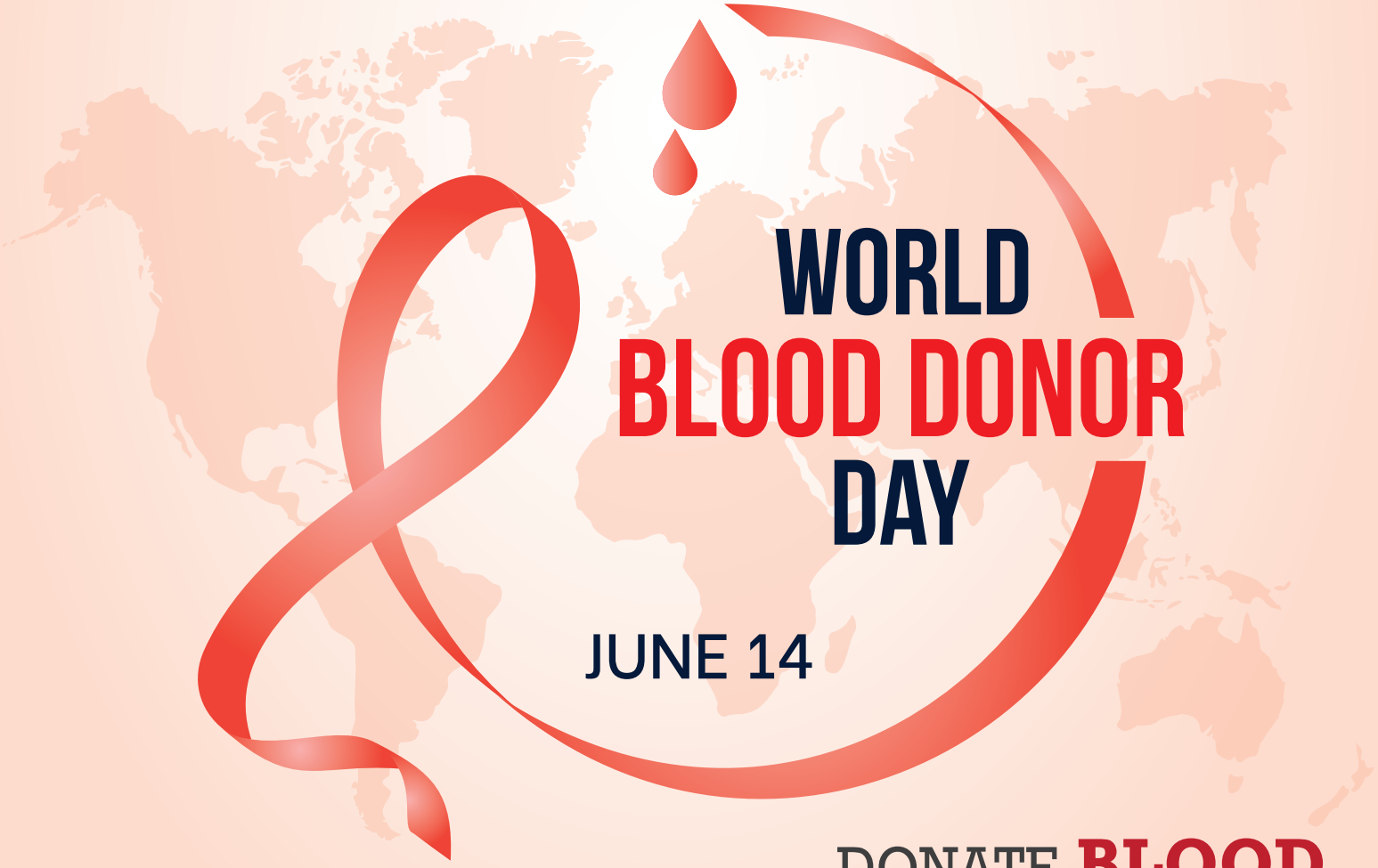
VOLUME 40 | ISSUE 1 | June 2024

Sri Ramakrishna
Hospital (MultiSpeciality)

pulse

Happenings at Sri Ramakrishna...

48 Years of Excellence



DONATE **BLOOD**
SAVE LIVES

Shri.D.Lakshminarayanaswamy
Managing Trustee

It gives me immense happiness to be a part of this organization and privilege to be the part of the team that constantly strives to provide the best health care services. We work with a vision to provide affordable world-class healthcare services. We believe constant change is important to bring the best results. Similarly technology is the change that act as a foundation to provide best medical services.

World Blood Donor Day is an annual event to thank voluntary blood donors and acknowledge them. One of the aims of the day is to encourage younger people, who might be a bit nervous or unsure about giving blood, to feel encouraged to sign up and start donating, so that the donor population doesn't decline but stays strong. To create an awareness that Blood donation can make a significant difference in someone's life and contribute to the overall health and well-being of our community.

Let us join together to support this noble cause and ensure that no one faces health hazards due to lack of blood. We salute to all the donors who had already made a difference, and let us continue to work together to save lives.

Dr. S. Rajagopal
Medical Director

Sri Ramakrishna Hospital has always been a forerunner in conducting diverse academic programs alongside its clinical achievements. The emphasis on clinical club meetings, where in the discussion of interesting cases adds an enriching dimension to the professional development of the team.

The specific focus on **Hematology, Anaesthesiology** and **Psychiatry** this month demonstrates a commitment to staying updated with medical advancements and addressing a broad spectrum of healthcare needs. This proactive approach not only benefits the medical professionals involved but also enhances the overall quality of patient care.

Every year, millions of lives are saved by the generosity and compassion of blood donors, as their donation helps with the recovery and health of patients who have illnesses or injuries, complex operations or childbirth complications and cancer treatment. Blood stocks are also essential in natural and man-made disasters. Some blood types are rare, so promoting the need for rare donor types is also part of this event. **World Blood Donor Day(June 14)** highlights the need for periodic blood donations and creating awareness among new donors with how blood donations have saved and changed many lives.

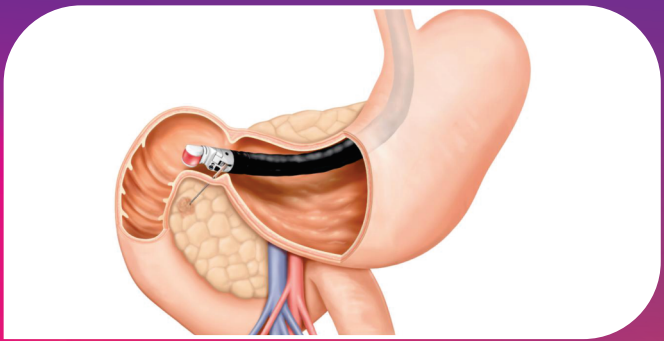
World Hand Hygiene day - 04.05.2024

World Hand Hygiene Day (05.05.24) is a global campaign aiming to promote hand hygiene in health care facilities and communities worldwide. The theme of this year 2024 is " Promoting knowledge and capacity building of health care workers through innovative and impactful training and education, on infection prevention and control, including hand hygiene". In order to create awareness among our hospital employees, the Infection Control Department headed by Dr.C.Ashmi organized various awareness sessions, demonstrations and fun activities to emphasis the importance of hand hygiene in preventing the spread of infections. The World Hand Hygiene day was celebratd on 04.05.24 at our Hospital. The occasion was further graced by Shri. Ramkumar, CEO SNR Sons Charitable Trust, Dr.Rajagopal, Medical Director, Dr.Alagappan, Medical Superintendent and Chief guest Dr.Siddartha Buddhavarappu (Consultant Neonatoloist and HOD) addressed the gatherings and highlighted the importance of hand hygiene.

"Let's continue to prioritize hand hygiene every day for a healthier tomorrow".

International Nurses Day Rally - 09.05.2024

"International Nurses Day" is celebrated on May 12th, 2024. To mark the significance of this day our Sri Ramakrishna Hospital paid tribute to Florence Nightingale on her birth anniversary, who paved the path for modern nursing through organizing a Rally on the theme "Our Nurses, Our Future - The economic power of care". This event was flagged off by Shri. D. Lakshminarayanaswamy, Managing Trustee, SNR Sons Charitable Trust and Ms. Swathy Rohit, COO, SNR Sons Charitable Trust, in the presence of CEO, Medical Director, Medical Superintendent, CNO, DCNO and other DNOs in Race Course, Coimbatore. Around 200 nurses from our Hospital held placards on services rendered by them and the role they play in the healthcare sector. This rally symbolized the unwavering dedication that nurses show the patients with their exceptional care and compassion in patient care.



Endoscopic ultrasound guided choledochoduodenostomy(EUS-CDS)

Case Report:

Endoscopic ultrasound guided choledochoduodenostomy (EUS-CDS) in a case of lower CBD stricture secondary to carcinoma head of the pancreas with obstructive jaundice.

75 years old female known case of DM and CAD on regular medications. Presented with epigastric pain mild to moderate and radiating to back on & off since 3 months. Pain was associated with nausea and occasional vomiting. Patient developed progressive weight loss and yellowish discolouration of sclera and passing high coloured urine followed by generalized pruritus and clay coloured stools since 15days. No fever or rigor or malena.

On Examination: Patient was found have icteric with mild epigastric tenderness. Investigations revealed deranged liver profile.

Liver Function Test	
Total Bilirubin	5.8mg/dl
Direct Bilirubin	4.8mg/dl
Indirect Bilirubin	1.0mg/dl
Total protein	7.4mg/dl
Albumin	3.7g/dl
Globulin	3.7g/dl
SGOT	182U/L
SGPT	182U/L
GGT	878 U/L
Alkaline phosphatase	625U/L

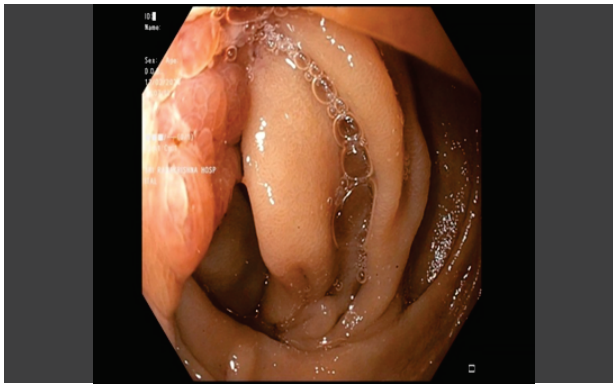
USG Abdomen was done which showed focal mass lesion in head and uncinate process of pancreas obstructing the distal common bile duct and pancreatic duct. Patient was further evaluated with CECT abdomen which showed Illdefined poorly enhancing mass lesion (3x2cm) in the uncinate process of pancreas abutting/ infiltrating the duodenum. The mass compressed the pancreatic duct and distal common bile duct at ampulla causing upstream dilatation of bile ducts. Multiple liver metastases, small periportal/ portocaval lymphnodes.

Patient underwent diagnostic endoscopy which showed duodenal (D2) infiltration of tumour with luminal narrowing was noted. USG guided Liver biopsy was taken from metastatic lesion which showed features of adenocarcinoma of pancreatic origin. Patient was diagnosed to have obstructive jaundice due to lower CBD stricture secondary to carcinoma pancreas with metastasis. Prognosis was explained to the relatives and suggested Palliative biliary drainage. ERCP was failed due to tumor infiltration of the duodenum and ampulla with narrowing of the duodenum. Ampullary orifice could not be identified and CBD could not cannulated and hence patient was subjected to EUS guided biliary drainage.

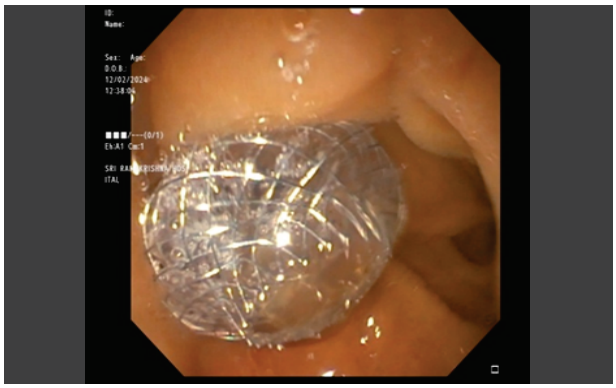
EUS was done at D1 station which revealed mass in the head of pancreas with lower CBD stricture. EUSguided Choledochoduodenostomy was done using Hot axios lumen apposing metal stent (8mmx8mm). Free bile flow was noted. Patient improved symptomatically . LFT was improved and pruritus subsided. Patient tolerated oral solid foods.

CT Abdomen

Diagnostic endoscopy



EUS – CDS



Discussion: EUS Guided choledochoduodenostomy is an advanced therapeutic biliary drainage procedure and it was done when standard ERCP is failed due to tumor infiltration of duodenum and ampulla with tight lower CBD stricture which happens in 7% to 13% of patient with carcinoma head of pancreas.

In such patients, biliary drainage was previously done using percutaneous trans-hepatic biliary drainage (PTBD). However, in recent years, endoscopic ultrasound (EUS)-guided biliary drainage is emerging as an alternative method.

Of various EUS-guided biliary drainage procedures (EUS-BD), EUS-guided choledochoduodenostomy (EUS-CDS) and EUS-guided hepaticogastrostomy (EUS-HGS) are the most common . In various case series, these procedures have been associated with technical and clinical success rates exceeding 90 %, and adverse event rates of 8 % to 25 % .EUS-BD with fully-covered self-expandable metal stents (FCSEMSs) provides prolonged stent patency and decreases the risk of bile leak compared with EUS-BD with plastic stents . However, FCSEMS are associated with stent migration, and stent migration rates of 6 % to 30 % have been reported.

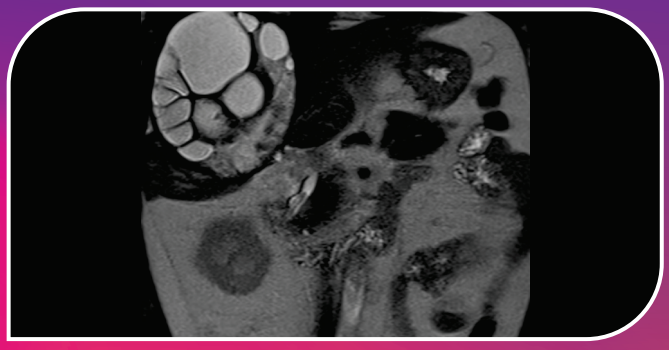
To decrease the risk of migration, lumen-apposing biflanged FCSEMS have been used for EUS-CDS. However, the biflanged shape and the large diameter of the delivery system for these stents pose a limitation in drainage of tubular bile ducts with stent-related complications such as perforation, cholangitis, and stent migration have been encountered.

Partially-covered self-expandable metal stents (PCSEMS) are also associated with a lower risk of stent migration, while providing the advantage of relatively small delivery system (diameter = 7.5 F). However, there are only a few reports of the use of PCSEMS for EUS-CDS.

This EUS Guided CDS procedure was First of kind in Coimbatore and outside Chennai. So far we have done successfully 6 cases of Choledocoduodenostomy, 3 cases of CDS using Hot axios stents and 3 cases of CDS using fully covered metal stents.

Dr.M.MURUGESH
MD., DM., (GASTRO)

Consultant Medical
Gastroenterologist & Hepatologist



A Ruptured Hepatic Hydatid Cyst into Biliary Tree Causing Obstructive Jaundice

A 55-year-old-male patient presented with a history of pain in right upper abdomen for about 3 days, which was associated with nausea and yellowish discoloration of eyes and urine. He had no significant past history or co-morbidities.

On examination, the patient was icteric and had tenderness in right hypochondrial region. Investigations revealed an elevated total bilirubin (4.6 mg/dL) with direct bilirubin (3.4 mg/dL) more than indirect bilirubin (1.2mg/dL) level, suggestive of obstructive jaundice. Viral markers test was negative.

Abdomen ultrasound showed multiloculated cystic lesion in the right lobe of liver (probably indicative of Hydatid cyst) and dilated common bile duct with intra hepatic biliary radicular dilatation. Subsequent, Magnetic resonance imaging (MRI) of the abdomen revealed a large cystic lesion (measuring 12x11.3x11.0cm) in the segment 6 and 7 of the right lobe of liver. The cystic lesion had multiple daughter cysts of varying sizes along its periphery - suggestive of Hydatid cyst (Yellow Arrow in Figure 1).

In addition, MRI findings included dilated intrahepatic bile duct dilatation in both lobes of liver, primary confluence and both secondary confluence of bile ducts was intact. Common bile duct (CBD) was dilated (1.1cm) with enlarged cystic structure (1.6x0.3cm) seen within the distal CBD - Possibly suggestive of a Ruptured Hydatid cyst within the bile duct (Red Arrow in Figure 1).

Figure 1: MRI Abdomen showing hydatid cyst in liver with daughter cyst in lower CBD

Endoscopic Retrograde Cholangiopancreatography (ERCP) was performed, and selective CBD cannulation was achieved using a bow sphincterotome(Figure 2A). The position was confirmed by fluoroscopy and aspirating the dark bile.

The guidewire was placed in right anterior hepatic duct. Cholangiogram showed small filling defects in distal CBD with mild dilation of proximal CBD and the intrahepatic biliary radicals (IHBR). Biliary sphincterotomy was done(Figure 2B). Balloon trawling yielded blackish cystic membranes(Blue Arrow in Figure 2C).

CBD was flushed with saline to remove any tiny cysts. Subsequent balloon occlusion cholangiogram done showed no obvious filling defects. A 10FX9cm single straight plastic stent deployed into the CBD (Figure 2D). The procedure was uneventful. Post-procedure, the patient was started on oral albendazole 400 mg twice daily for 3 weeks.

Subsequently, the patient underwent laparoscopic surgical intervention. Cyst wall punctured and cyst decompressed, an area of cyst wall excised (Figure 3A). Hydatid membrane and daughter cysts suctioned out (Figure 3B).

Cavity irrigated with hypertonic saline (Figure 3C). No bile staining or opening suggestive of cystobiliary communication seen. 28 Fr drain placed in cyst cavity. Omentum placed within the cyst cavity. Cholecystectomy was performed (Figure 3D). Post-operative period was uneventful and drain was removed.

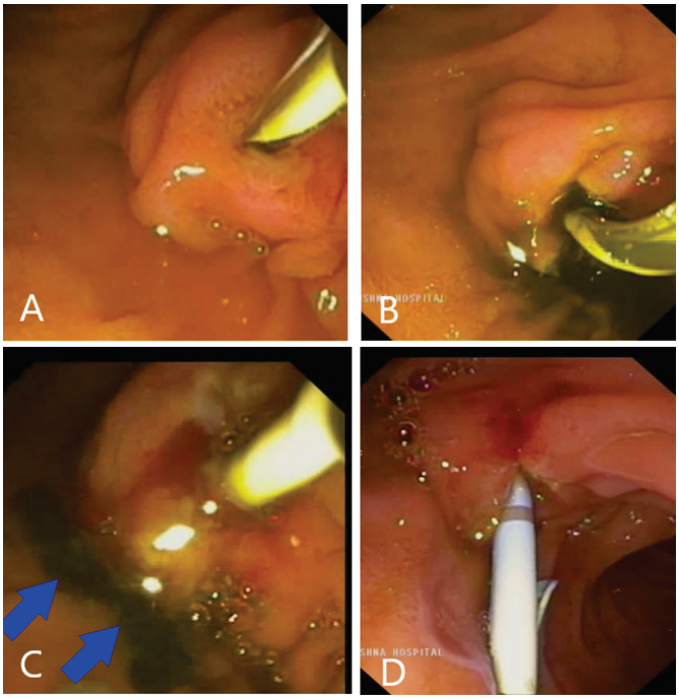


Figure 2: ERCP showing (A,B)Biliary sphincterotomy and draining of dark bile (C) Daughter cysts delivered. (D) Stent placed in CBD

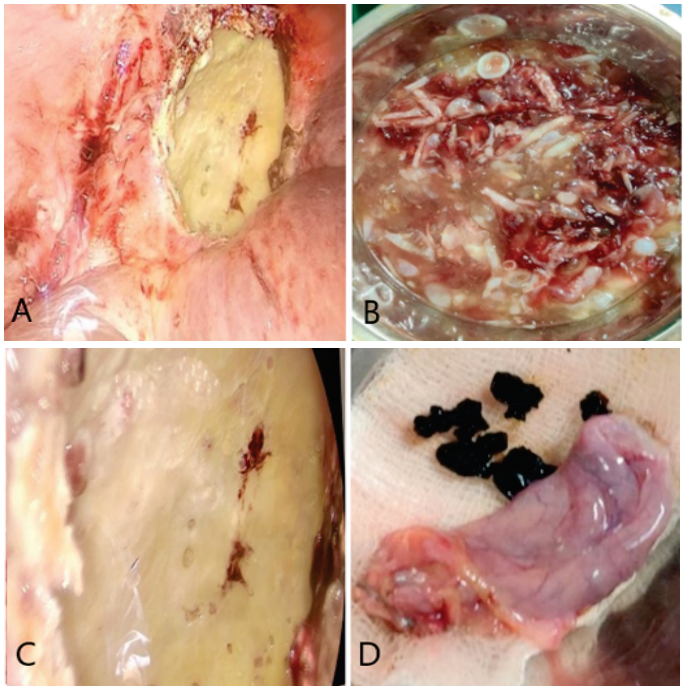


Figure 3: Laparoscopy showing (A)Deroofed cyst (B) Daughter cysts and hydatid membrane (C) Cyst cavity (D) Gall bladder with stones

In the follow-up visit, after 1 month the biliary stent was removed. The patient is on regular follow up for the past 1 year and there was no recurrence noted. Hydatid disease (echinococcosis) is a zoonosis caused by the larval stage (hydatid cysts) of cestodes (tapeworms), belonging to the genus Echinococcus. Humans are intermediate hosts and become infected directly by contact with canines or indirectly by food, water, or contaminated objects. In endemic regions, human incidence rates for cystic echinococcosis can reach more than 50 per 100,000 person-years, and prevalence levels as high as 5%–10% may occur in parts of Argentina, Peru, East Africa, Central Asia and China. Furthermore, because of population migration, its prevalence in nonendemic regions has been increasing.

Most patients have a single organ involved and harbour as a solitary cyst, localized in approximately two thirds of the patients in the liver. Some cysts may grow (average increase, 1-30 mm/year) and others may collapse and could completely disappear. An enlarging cyst may cause compressive atrophy of the surrounding hepatocytes and fibrosis. Compression and displacement of biliary ducts are frequently noted. At the point of contact with the biliary duct, a spontaneous rupture may occur, and this communicating intra-biliary rupture has been classified either as a frank perforation with overt passage of hydatid material into the biliary tract or as occult leakage with signs of suppuration only. Moreover, patients with such communications have significantly higher operative morbidity rates and longer hospital stays compared with others without such a communication.

Early diagnosis and management of an intra-biliary rupture of a liver hydatid cyst are mandatory since it may lead to biliary system obstruction with a mortality rate of about 50%. Also, biliary cirrhosis could be a late sequel. Imaging techniques are helpful in making the diagnosis.

Though cyst-biliary communication is deemed as a life-threatening condition, as in this patient, an early diagnosis and proper management of an intra-biliary rupture of a hydatid cyst of the liver provided better clinical outcome.

Dr.R.SABARINATHAN
MBBS, DNB(General Medicine), DM(Gastroenterology),
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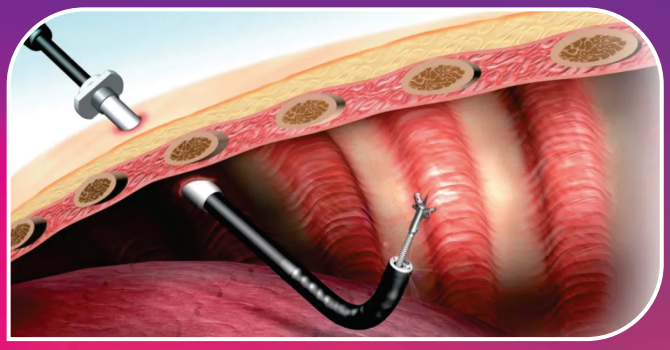
Consultant Gastroenterologist & Hepatologist



Utility of Medical Thoracoscopy in the evaluation of Pleural Effusion

The pleural space is bounded by two membranes, the visceral pleura covering the lung and the parietal pleura covering the chest wall and diaphragm. Normally, liquid and protein enter from the systemic circulation and are removed by the parietal pleural lymphatics. Pleural pressure is subatmospheric and thus ensures inflation of the lungs. The mesothelial cells covering the pleura are leaky and thus excess pleural fluid can move across into this lower-pressure, high-capacitance space and collect as a pleural effusion. Pleural effusion results from abnormal collection of fluid due to excessive production or decreased pleural fluid absorption. Thus, pleural effusions are common and of highly diverse etiologies. Excess pleural fluid can accumulate in the pleural space when there is excessive pleural capillary permeability and there is pleural inflammation. The etiologies for the pleural effusion can have pulmonary, pleural and extra pulmonary causes. The fluid can be transudative or exudative depending on the pleural fluid composition [Light's criteria].

The development of a pleural effusion is a common manifestation of pulmonary disease. In about half of all cases of pleural effusion, the diagnosis is apparent after a thorough history and physical examination and a work-up, including diagnostic thoracentesis and with other selected diagnostic tests. Unfortunately, as many as 15% to 20% of all pleural effusions remain undiagnosed despite intensive efforts for the diagnosis after diagnostic thoracentesis and/or closed pleural biopsy. An undiagnosed pleural effusion is often a difficult problem that needs histological study for a definitive aetiological diagnosis. Medical thoracoscopy/pleuroscopy is a minimally invasive procedure that allows access to the pleural space using a combination of viewing and working instruments. It also allows for basic diagnostic (undiagnosed pleural fluid or pleural thickening) and therapeutic procedures (pleurodesis) to be performed safely in addition to pleural biopsy for etiological diagnosis of pleural effusion.

A thorough history may provide clues to aetiology. Pleural effusions are classified as transudates or exudates according to the light's criteria. The erect PA chest radiograph is usually abnormal once >200 ml of fluid is present, whereas a lateral film will show blunting of the posterior costophrenic angle with as little as 50 ml. Ultrasound can be used to identify even small effusions. Ultrasound is clearly more sensitive for detecting pleural effusions than a lateral decubitus chest radiograph, and is also better able to predict the nature of the fluid. CT chest allows small amounts of pleural fluid to be detected. CT is helpful in the assessment and management of loculated pleural effusions in addition to obtaining other informations regarding the etiologies of pleural effusion. Why is it important to differentiate transudates from exudates? If a patient has a transudative pleural effusion, then it is only necessary to treat the cause of the effusion, such as heart failure or cirrhosis. However, if it is an exudative effusion, more investigation is indicated to identify the local problem that is causing the pleural effusion.

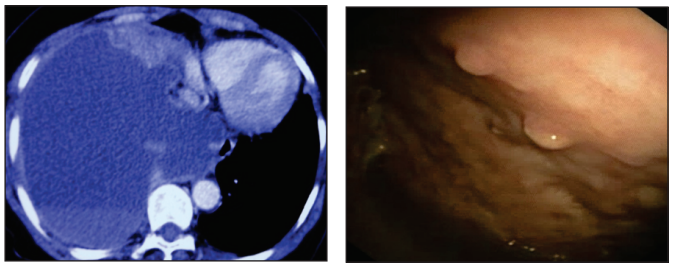
Medical thoracoscopy,or pleuroscopy, refers to thoracoscopy typically conducted by a nonsurgeon pulmonologist with the patient under local anesthesia and conscious sedation. Pleuroscopy is an endoscopic procedure that examines the pleural cavity, facilitates drainage of pleural fluid, and guides parietal pleural biopsy, talc pleurodesis, and chest tube placement without endotracheal intubation and general anesthesia. Some practitioners in Europe perform pleuroscopic sympathectomy for essential hyperhidrosis, and lung biopsy for diffuse lung disease. Medical thoracoscopy is a safe, reliable, and minimally invasive procedure with a high diagnostic yield in pleural effusions of unclear etiology. Contraindications are uncommon and rarely absolute. The main limitation is the size of free pleural space. Thoracoscopic procedures can be Semi-rigid thoracoscopy and rigid thoracoscopy procedures. Traditionally, medical thoracoscopy had been performed using rigid instruments and the same continued to be the case till the introduction of the semi-rigid thoracoscope.

Medical thoracoscopy is an extremely useful diagnostic modality that can often contribute crucially to accurate clinical decision-making in patients with undiagnosed pleural effusion.In patients where a successful pleural biopsy can be obtained, the yield of medical thoracoscopy performed by either rigid or

semi-rigid thoracoscopy instruments has been reported to be similar in a randomized comparison between the two techniques. In a prospective randomized study comparing the size, quality and diagnostic adequacy of biopsy specimens obtained by semi-rigid and rigid thoracoscope, it was demonstrated that there were no differences in the quality and interpretability of the specimens obtained by both the procedures. Although the specimens obtained by semi-rigid thoracoscope were smaller, they were still of adequate quality and the diagnostic accuracy was comparable with that of rigid thoracoscopy in the evaluation of pleural effusion of undiagnosed etiology. In cases, where an aggressive adhesiolysis is not the aim, semi-rigid thoracoscope offers particular advantages in terms of the procedure being less painful, lesser requirements of analgesic drugs and a smaller scar size. The greatest advantage, however, is the ease of adoption of the semi-rigid thoracoscope by bronchoscopist as the handling of the instrument essentially resembles that of a flexible bronchoscope.

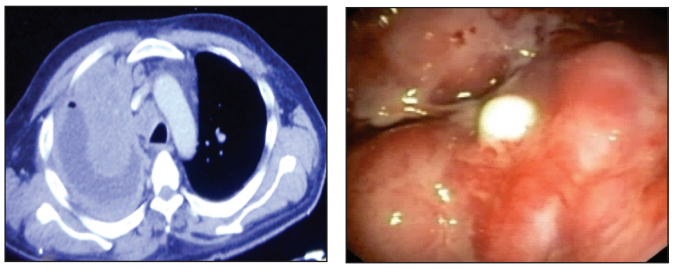
Radiological (CT), thoracoscopy pleural appearance in malignant pleural efusion

Adenocarcinoma Lung



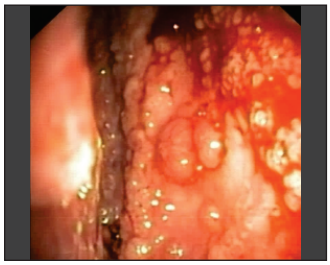
CT chest: Large right pleural effusion with right pleural thickening
Thoracoscopy: Shows variable sized nodules over the parietal pleura with parietal pleural infiltration

Squamous cell carcinoma lung

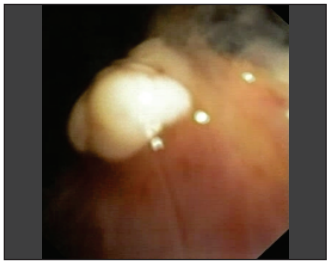


CT chest: Large right pleural effusion associated with right pleural thickening with right pleural nodularity
Thoracoscopy: Shows large pleural nodules over the parietal pleura with parietal pleural infiltration

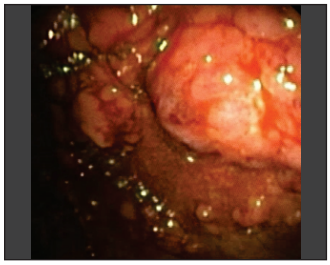
Thoracoscopic image: Metastatic pleural effusion



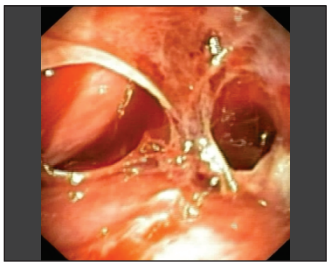
Thoracoscopic image: Tuberculosis



Thoracoscopic image: Metastatic pleural effusion

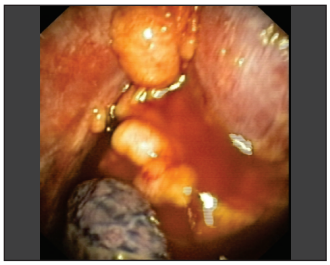


Thoracoscopic image: Multiple Pleural adhesions



Thoracoscopic image: Visceral pleural infiltration by tumour

Thoracoscopic image: Multiple parietal pleural nodules



Dr.N.LOGANATHAN
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Senior Consultant in Pulmonology,
Critical Care, Sleep Medicine & Interventional Pulmonologist

International Nurses Day Celebrations - 11.05.2024

Sri Ramakrishna Hospital expressed gratitude to the nurses for their unwavering solidarity to healthcare through celebrating International Nurses Day on 11.05.2024.

Chief Nursing Officer Mrs. Girija welcomed the gathering. The Presidential addressed was delivered by Managing Trustee Shri. D. Lakshminarayanaswamy who emphasized the vital role nurses play in patient care and the healthcare system. The International Nurses Day theme "Our Nurses, Our Future - The economic power of care" was revealed by Dr. Nirmala, Principal, College of Nursing SRIPMS. Further annual report was presented.

To honor outstanding nurses and the winners of various competitions awards were presented by Shri. C. V. Ramkumar, CEO, Dr. Rajagopal, Medical Director and Dr. Alagappan, Medical Superintendent. The celebration featured various cultural performances by the nurses adding a festive spirit to the event and showcased the talents of the nursing team. The celebration ended with a vote of thanks delivered by Deputy Chief Nursing Officer Mrs. Jayashri. The celebration not only recognized the hard work and dedication of the nursing staff but also inspired them to continue their journey with passion and pride.

World Emergency Medicine Day - 27.05.2024

World Emergency Medicine Day is observed on 27.05.2024. This day is dedicated to recognize and promote the importance of emergency medicine and the professionals who work tirelessly to provide critical care in emergency situations.

A poster designing competition was conducted for the Staff Nurses with the theme "Climate Changes in Health Emergency". They actively participated and presented their creativity through designing.

Coimbatore's first Integrated Brain and Mind Care Centre launched in Sri Ramakrishna Hospital

Sri Ramakrishna Hospital collaborated with Buddhi Clinic, Chennai and launched Coimbatore's first Integrated Brain and Mind Care Centre on July 2021.

This collaboration embraces modern science with ancient knowledge that will significantly contribute to make better quality of life and improve the daily activities of patients with Neuro-disabilities and mental health problems.

Integrated Brain & Mind Care

buddhi CLINIC

புத்தி கிளினிக்

The Services Offered At This Treatment Centre

This treatment centre will offer innovative services that enhance the integrated approach to long-term brain and mind care. For instance, Neuromodulation innovations being utilised are

- Transcranial Magnetic Stimulation (TMS) to treat neurological and psychiatric disorders in order to stimulate specific brain pathways for specific conditions and outcomes.
- Transcranial Direct Current Stimulation (tDCS) uses constant, low direct current delivered via electrodes on the head which stimulates specific brain pathways for specific conditions and outcomes and
- Transcutaneous auricular Vagus Nerve Stimulation (taVNS) stimulates the auricular (ear lobe) branch of the vagus nerve that innervates the human autonomic nervous system.

There are other innovations in the pipeline that we hope will lead to a paradigm disruption in this space and in turn will improve the quality of each patient's life significantly. Our aim is to continue to provide personalised and meaningful patient experiences at competitive rates.

The centre is very certain that their caring approach will add considerable value to all those patients approaching Sri Ramakrishna Hospital, seeking relief from pain, mental health, disability and lifestyle conditions, with neurology and psychiatry being a primary focus area.

www.buddhiclinic.com 95000 10056 / 65

WORLD NO TOBACCO DAY - 31.05.2024

World No Tobacco Day is observed globally on May 31st, as a reminder to highlight the health risks associated with tobacco use, how the younger generations are affected, and spread the word of awareness to reduce tobacco consumption.

Sri Ramakrishna Hospital took a significant step forward by leveraging digital technology to educate and empower the community against tobacco use. To make an impact and to spread awareness on “Interactive Digital Counsellor Modules” was launched for the first time in India with interactive audio offering complete awareness information in English and Tamil.

This event was graced by Chief Guest Dr. V. Geethalakshmi, Vice-Chancellor, Tamil Nadu Agricultural University, Coimbatore; presided over by Shri R. Sundar, Joint Managing Trustee, SNR Sons Charitable Trust. Dr. Guhan, Director, Medical Oncologist-SRIOR welcomed the gathering. CEO, Medical Director, Medical Superintendent, Consultants, Technicians, Nursing team and Students took part in this event. Dr. K. Karthikesh, Consultant, Surgical Oncologist-SRIOR delivered vote of thanks.