ADVANCED PAEDIATRIC SERVICES AT MEDANTA

A Centre of Excellence for Comprehensive Paediatric Care

About Medanta

Medanta – The Medicity is one of India's leading multi-specialty healthcare institutions, built on a commitment to deliver **evidence-based, world-class medical care with compassion**. Supported by advanced technology, globally trained specialists, and robust clinical protocols, Medanta serves patients from across India and over 50 countries focusing on safety, precision, and better outcomes.

Advanced Paediatric Centre at Medanta

The **Advanced Paediatric Centre** at Medanta is designed as a comprehensive **tertiary and quaternary care institute** offering coordinated, multidisciplinary care for newborns, infants, children, and adolescents.

- Subspecialty Expertise
- Advanced Diagnostics
- Specialised Surgery
- Paediatric Critical Care Excellence

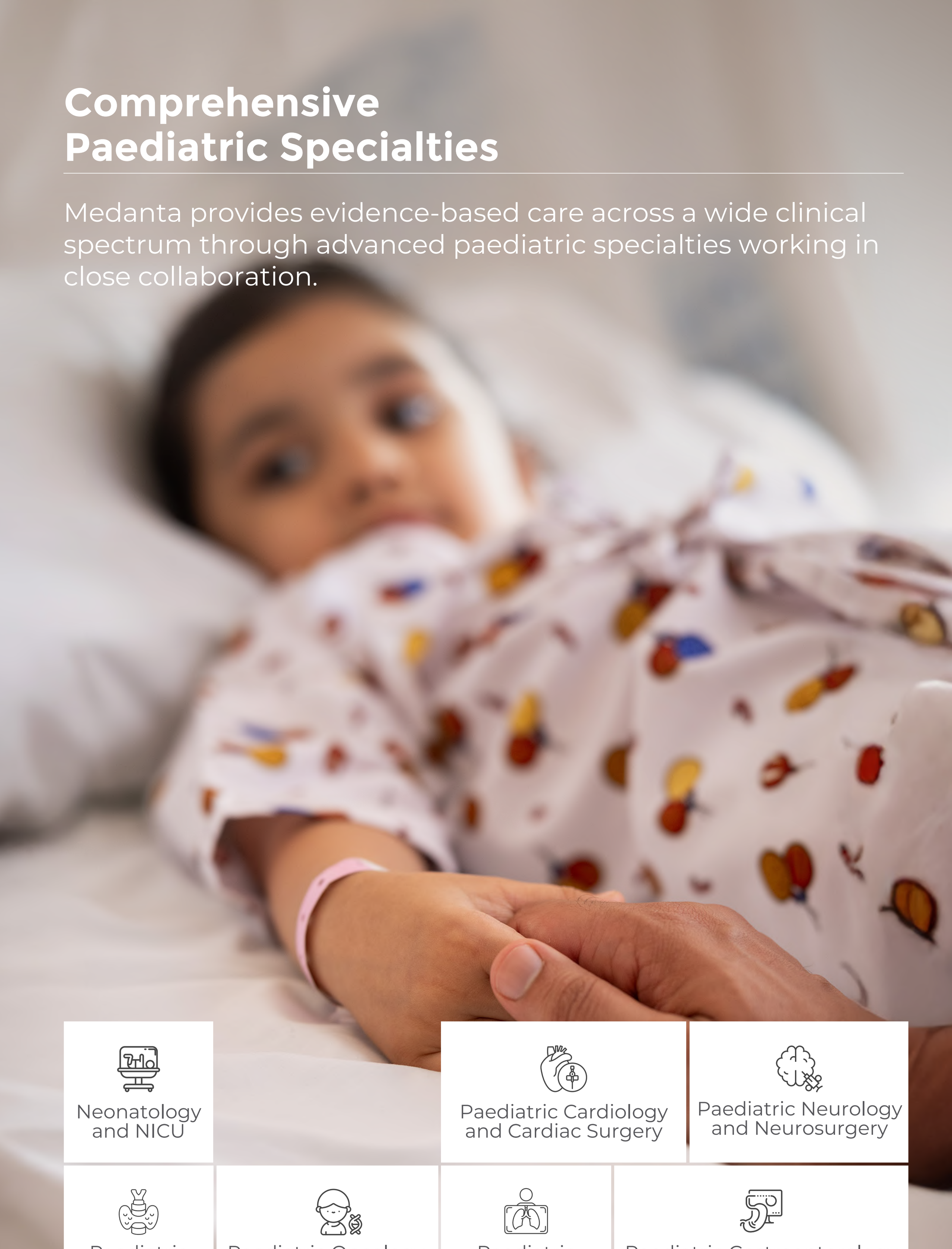
Partnering with Referring Physicians

with the aim to support them in managing complex or high-risk paediatric conditions with confidence.

- Seamless Referral Coordination
- Transparent Communication
- Shared Treatment Planning
- Structured Follow-up Programs

Comprehensive Paediatric Specialties

Medanta provides evidence-based care across a wide clinical spectrum through advanced paediatric specialties working in close collaboration.



- Neonatology and NICU
- Paediatric Cardiology and Cardiac Surgery
- Paediatric Neurology and Neurosurgery
- Paediatric Endocrinology
- Paediatric Oncology and Haematology
- Paediatric Pulmonology
- Paediatric Gastroenterology and Hepatology
- Paediatric Orthopaedics
- Paediatric Nephrology and Urology
- Paediatric Critical Care (PICU)

All services are supported by **child-focused diagnostics, paediatric anaesthesia, imaging, lab services, and sedation support.**

Centres of Excellence

Our focused clinical programs are developed for managing complex, high-acuity paediatric conditions requiring multidisciplinary expertise and advanced care environments.

Paediatric Liver Transplant and Hepatobiliary Sciences

- Comprehensive transplant program for end-stage liver disease and complex hepatobiliary disorders
- Expertise in congenital, metabolic, acute and chronic liver disease
- Structured evaluation, peri-operative care and lifelong follow up
- Integrated team of hepatology, transplant surgery, critical care, infectious disease and nutrition
- Multidisciplinary coordination involving hepatology, transplant surgery, critical care, nutrition and rehabilitation teams

Paediatric Neurology and Neurosciences

- Management of epilepsy, neuromuscular disorders, neurodevelopmental conditions, movement disorders and structural brain abnormalities
- Integrated medical and surgical care delivered through coordinated multidisciplinary pathways
- Developmental assessment and early intervention programs for children with developmental delays and behavioural concerns
- Access to counselling, behavioural therapy, and paediatric psychiatry support
- Advanced neurodiagnostics including EEG and neuroimaging

Paediatric Gastroenterology and Hepatology

- Advanced care for gastrointestinal, hepatic, nutritional and pancreatic disorders
- Expertise in inflammatory bowel disease, chronic liver conditions, malabsorption and feeding difficulties
- Endoscopy and therapeutic intervention capabilities
- Long-term disease management and nutritional support in collaboration with primary physicians

Paediatric Oncology and Haematology

- Comprehensive care for childhood cancers and complex blood disorders
- Advanced Paediatric Bone Marrow Transplant and Cellular Therapy Programme
- Evidence-based chemotherapy protocols and supportive care pathways
- Multidisciplinary care involving paediatric oncologists, haematologists, critical care specialists and infection control teams
- Access to advanced diagnostics including bone marrow evaluation and molecular testing

Paediatric Cardiology and Cardiac Surgery

- Care for congenital and acquired heart diseases
- Advanced cardiac imaging, echocardiography and catheterisation
- Interventional and surgical treatment spectrum
- Continuum of care from infancy to adolescence

Paediatric Surgery and Paediatric Urology

- Comprehensive care for congenital and acquired urological conditions in children
- Expertise in antenatal urology, congenital anomalies of the kidney and urinary tract, and voiding disorders
- Advanced management of paediatric kidney, bladder and genital conditions
- Minimally invasive and reconstructive paediatric urological surgeries
- Multidisciplinary collaboration with paediatric nephrology, neonatology, radiology and critical care teams
- Structured long-term follow-up focused on renal preservation, growth and quality of life

Paediatric Pulmonology

- Comprehensive respiratory care for acute and chronic lung conditions
- Advanced pulmonary diagnostics and bronchoscopy
- Tailored ventilation strategies
- Long-term respiratory care programs

Paediatric and Neonatal Critical Care

- 24×7 Paediatric Intensive Care with advanced life support
- ECMO capability for severe respiratory and cardiac failure
- High-end monitoring and ventilation technologies
- Round-the-clock specialist supervision
- Focus on timely intervention, safety, and optimal outcomes

The Medanta Edge: Infrastructure and Technology

Designed exclusively for paediatric safety, precision and comfort.

Key Infrastructure

- Dedicated NICU and PICU
- Child-safe Operating Theatres
- Specialised Procedure Rooms
- Family-friendly Inpatient Environments

Advanced Technology

- ECMO and Advanced Ventilation
- Paediatric Bronchoscopy (Rigid and Flexible)
- EEG, EMG and Neurodiagnostics
- Advanced cardiac diagnostics and cath lab support
- MRI, CT, Ultrasound and X-ray with Paediatric Sedation
- Genetic and Molecular Diagnostics
- Rapid Response Laboratory Services

All technology is supported by trained paediatric teams and safety-first protocols.

Diagnostics and Procedures

- Echocardiography and Cardiac Catheterisation
- GI Endoscopy and Advanced Hepatology Diagnostics
- Genetic Testing and Counselling
- Lumbar Puncture and Neurological Diagnostics
- Pulmonary Function Testing and Bronchoscopy
- MRI, CT, Ultrasound, X-ray
- Bone Marrow Biopsy

Every procedure follows **child-safe anaesthesia and sedation protocols.**

Paediatric Emergency and Acute Care (24×7)

- Dedicated Paediatric Emergency Triage
- PALS-Driven Protocols
- Rapid Escalation to PICU / OT / Cath Lab
- Immediate Access to Paediatric Anaesthesia
- Structured Inter-hospital Transfer Support

Experienced in managing **medical, surgical, neurological, cardiac, gastrointestinal and trauma emergencies** in children.

Our Commitment to Families

At Medanta, paediatric care goes beyond treatment.
We prioritise holistic, family-centred care at every stage of a child's treatment journey.

Rehabilitation and Long-term Follow-up Care

Family Involvement in Care

Clear Communication and Counselling

Emotional and Psychological Support

Our goal is safer care, better outcomes, and reassurance for every family.

Our Specialists

Paediatrics | Paediatric Pulmonology and Critical Care

Dr. Praveen Khilnani
Chairman

Paediatrics, Pediatric Pulmonology and Paediatric Critical Care

Dr. Rajiv Uttam
Director & HOD

Paeditrics, PICU and Paediatric ER

Dr. Vikas Sharma
Associate Consultant

Paediatric Critical care

Dr. Kuchibhotla Srivatsa
Associate Consultant

Paeditrics, PICU and Paediatric ER

Dr. Swati Kalra
Senior Consultant

Paediatrics

Dr. Ankush Singh
Consultant

Paediatric Neurology

Dr. Deep Shikha
Consultant

Paediatric Cardiac Critical Care

Dr. Mona Kulpati
Senior Consultant

Paediatrics

Our Specialists

Neonatology

Dr. Antony Joseph Thekkinedath
Director & HOD
Paediatric Cardiac Critical Care

Dr. Ankit Gupta
Consultant
Neonatology

Dr. Romel Anant Akole
Consultant
Neonatology

Dr. Ruchi Dhall
Consultant
Neonatology

Dr. Sneha Bhatia
Consultant
Neonatology

Dr. Ramya Kaganur
Associate Consultant
Neonatology

Dr. Shachi Bhanuda
Associate Consultant
Neonatology

Our Specialists

Paediatric Surgery and Paediatric Urology

Dr. Shandip K Sinha
Director

Paediatric Surgery and Paediatric Urology

Dr. Praney Gupta
Senior Consultant

Paediatric Surgery and Paediatric Urology

Dr. Rahul Dey
Associate Consultant

Paediatric Surgery

Paediatric Cardiology and Cardiac Surgery

Dr. Amit Misri
Associate Director

Paediatric Cardiology

Dr. Pankaj Bajpai
Associate Director

Paediatric Cardiology

Dr. Razia Ahmad
Consultant

Paediatric and Adult Cardiac Surgery

Dr. Reena J
Associate Consultant

Paediatric and Adult Cardiac Surgery

Our Specialists

Paediatric Gastroenterology and Hepatology

Dr. Neelam Mohan
Senior Director

Paediatric Gastroenterology and Hepatology

Paediatric Hemato Oncology and Bone Marrow Transplant

Dr. Satya Prakash Yadav
Senior Director

Paediatric Hemato Oncology and Bone Marrow Transplant

Dr. Neha Rastogi
Senior Consultant

Paediatric Hemato Oncology and Bone Marrow Transplant

Dr. Dhwanee Shardul Thakkar
Consultant

Paediatric Hemato Oncology and Bone Marrow Transplant

Clinical Excellence in Action

Subdural Empyema in an Extremely Premature Neonate

Case Presentation

An extremely premature male neonate, born at 26 weeks 3 days gestation weighing 900 g, required immediate resuscitation, intubation, and surfactant for respiratory distress syndrome (RDS). He stabilized initially but deteriorated on day 47 of life with severe respiratory distress, hypotension, feed intolerance, and intractable seizures by day 55, despite multiple antibiotics and antifungals. Referred on day 66 to Medanta Gurugram's Neonatology Department in critical condition (lethargic, poor reflexes, active seizures, weak respiratory efforts).

Diagnostic Findings

Lumbar puncture revealed bacterial meningitis: glucose <20 mg/dL, protein 740 mg/dL, lactate 5.7 mmol/L, 214 WBCs (54% neutrophils). CSF culture grew Serratia marcescens. MRI brain showed diffuse leptomeningeal enhancement and left fronto-temporal subdural collection, confirming subdural empyema.

Management and Outcome

Multidisciplinary team (Neonatology, Neurosurgery, Infectious Diseases) performed urgent bedside burr hole evacuation of pus. Prolonged IV antibiotics were given per sensitivity. Seizures resolved, anticonvulsants tapered off. Repeat MRI showed reduced leptomeningeal enhancement and resolved empyema. Bronchopulmonary dysplasia required prolonged support, weaned to HFNC then off by day 98. Bilateral retinopathy of prematurity needed laser therapy twice. Discharged on day 102 at 2650 g, active, with good reflexes, tone, and oral feeds. Follow-up monitors for hydrocephalus progression (may need shunt).

Subdural Empyema in an Extremely Premature Neonate

Discussion

Neonatal bacterial meningitis carries high mortality (8–13% term, 14–25% preterm) and frequent neurodevelopmental sequelae. Subdural empyema, seen in ~18% of cases, arises from suppurative collection between dura and arachnoid, often due to pathogens like Gram-negative bacilli (e.g., Serratia). Diagnosis may delay under antibiotics; high suspicion and neuroimaging are essential. Risks include seizures, hydrocephalus, infarction, and impairment.

Treatment Approach

Aggressive management combines prolonged targeted antibiotics and surgical drainage (e.g., burr hole) when indicated. Multidisciplinary care in advanced NICUs optimizes outcomes in complex preterm cases.

Conclusion

Subdural empyema, though uncommon, complicates neonatal meningitis without markedly increasing mortality if recognized early. Prompt surgical intervention, extended antibiotics, and continuous monitoring are key to favourable neurological recovery. This case highlights the value of specialized, multidisciplinary facilities in salvaging extremely preterm infants with severe complications, enabling remarkable improvement and discharge in good condition.

Clinical Excellence in Action

Chylothorax: A Rare Presentation of Tuberculosis

Case Presentation

A 13-year-old boy presented with 2 months of fever, loss of appetite, and 10 kg weight loss, plus 1 week of cough and severe respiratory distress (SpO2 88%, RR 65/min, tachycardia, retractions). Chest X-ray showed right-sided consolidation with pleural effusion. Urgent pleural tap revealed milky fluid; intercostal drain (ICD) yielded 700 mL chylous fluid.

Diagnostic Findings

Pleural fluid analysis: 3500 cells (96% lymphocytes), triglycerides 1815 mg/dL, chylomicrons present - confirming chylothorax. Pleural fluid GeneXpert for TB was negative, but induced sputum GeneXpert was positive for Rifampicin-sensitive Mycobacterium tuberculosis. CT chest revealed cavitary lesions suggestive of infection. Blood and pleural fluid cultures were sterile.

Management and Outcome

The child improved rapidly after ICD drainage and supportive care (off oxygen within 48 hours; ICD removed on day 3). First-line anti-tubercular therapy (with pyridoxine) was initiated. He is doing well on follow-up with good weight gain.

Discussion

Tubercular pleural effusions are typically straw-coloured due to inflammatory response. Chylothorax is a rare presentation, caused by thoracic duct obstruction or disruption from inflamed/necrotising lymph nodes, leading to chyle leakage into the pleural space. The milky appearance results from high triglyceride content. Symptoms arise mainly from volume and pressure effects.

Chylothorax: A Rare Presentation of Tuberculosis

Treatment Approach

Therapy focuses on treating the underlying tuberculosis. Supportive measures include therapeutic drainage, low-fat/MCT-based diet, and occasionally octreotide to reduce chyle flow. Refractory cases may require thoracic duct embolization. Nutritional support is important due to ongoing loss of proteins, fats, and lymphocytes.

Conclusion

Tuberculous chylothorax, though uncommon, is fully curable with prompt anti-TB treatment. Clinicians should consider TB in chylous effusions, especially in endemic areas, and pursue aggressive microbiological confirmation (e.g., sputum testing when pleural fluid is negative) to ensure timely diagnosis and excellent outcomes.

medanta

24x7 Emergency No. **1068**

88-0000-1068

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