

THE EXCHANGE

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Clinical Innovations

New Milestones

Better Outcomes

Cover Feature

Advanced Ovarian Carcinoma
with Extensive Peritoneal Disease
Cytoreductive Surgery at Medanta - Noida



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Medanta - Noida

Advanced Ovarian Carcinoma with Bulky Bilateral Ovarian Masses

Cytoreductive Surgery for Extensive Peritoneal Disease

Advanced ovarian carcinoma may present with extensive abdominopelvic disease involving the ovaries and multiple peritoneal surfaces. Surgical planning in such cases requires careful assessment of disease distribution and involvement of adjacent structures to determine the extent of cytoreduction.

This case describes a 48-year-old woman with previously treated ovarian carcinoma who underwent extensive cytoreductive surgery at Medanta - Noida following evaluation of bulky bilateral ovarian disease with peritoneal involvement.

Clinical Presentation

A 48-year-old woman with hypertension and diabetes mellitus had been diagnosed with ovarian carcinoma in March 2026 and had received 13 cycles of chemotherapy.

She presented with a large tumour mass protruding through the umbilicus, associated with abdominal cellulitis. The size of the mass significantly limited ambulation and was associated with breathing difficulty, leaving her largely bed-bound. She was admitted for intravenous antibiotic therapy and further management.



Preoperative view showing marked abdominal distension with tumour protrusion through the umbilicus and surrounding cellulitis

Evaluation and Diagnosis

Contrast-enhanced CT of the abdomen demonstrated a large lobulated, heterogeneous, multiseptated cystic-solid abdominopelvic mass consistent with ovarian malignancy.

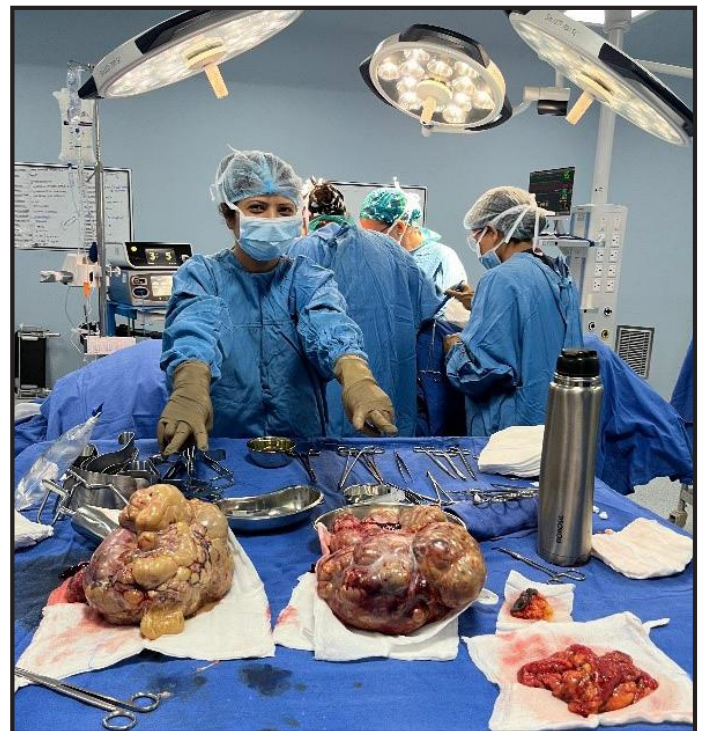
Associated findings included omental stranding and thickening, retroperitoneal lymphadenopathy, mild ascites and compression of the right proximal ureter with mild right hydronephrosis.

In view of the bulky bilateral ovarian masses, peritoneal involvement and right ureteric compression, cytoreductive surgery was planned following preoperative assessment. Given her history of coronary artery disease/angina, cardiology review was also obtained before surgery.

Surgical Management

On 14 September 2026, the patient underwent cystoscopy with bilateral DJ stenting, followed by cytoreductive surgery under general anaesthesia.

Intraoperative assessment revealed large bilateral solid-cystic ovarian masses measuring approximately 20 × 18 cm on the left and 21 × 17 cm on the right. The uterus showed no gross abnormality. Tumour deposits were noted over the bladder peritoneum and small-bowel mesentery, with additional lesions involving the parietal peritoneum, rectal serosa and peritoneum overlying the right ureter. No gross tumour was identified in the remaining bowel or upper abdomen.



Intraoperative view following excision of the bilateral ovarian masses during cytoreductive surgery

Cytoreduction included total abdominal hysterectomy with bilateral salpingo-oophorectomy, en bloc excision of the umbilicus, infracolic omentectomy and appendicectomy. Peritoneal and serosal tumour deposits involving the bladder peritoneum, rectal serosa,

small-bowel mesentery and right ureteric region were excised, along with bilateral ureterolysis. R1 resection was achieved. Haemostasis was secured, and the bilateral DJ stents were removed at the end of the procedure.



Gross specimens of the excised bilateral ovarian masses, weighing approximately 2.82 kg and 3.39 kg

Recovery and Outcome

The patient tolerated the procedure well and was monitored postoperatively in the ICU. Following stabilisation, she was shifted to the room on 15 September 2026.

Her subsequent recovery was stable, and she was discharged on 18 September 2026, with follow-up advised after seven days. Final histopathology confirmed endometrioid adenocarcinoma of the ovaries. Further chemotherapy was planned.

Clinical Perspective

This case highlights the complexity of managing advanced ovarian carcinoma with significant tumour burden and multi-site peritoneal involvement. Preoperative imaging demonstrated right ureteric compression, which informed the use of bilateral DJ stenting and ureterolysis during surgery.

Intraoperative disease mapping subsequently guided the extent of cytoreduction across the involved peritoneal and serosal sites. Following surgery and postoperative recovery, histopathology confirmed endometrioid adenocarcinoma, with further chemotherapy planned as part of continued oncological management.

Dr. Priya Bansal

Senior Consultant - Gynaecology and
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Case Study

Medanta - Patna

Multisuture Craniosynostosis with Severe Proptosis

Three-Dimensional Cranial Vault Remodelling with Fronto-Orbital Advancement

Multisuture craniosynostosis can significantly restrict cranial and orbital growth, with potential consequences including raised intracranial pressure, impaired venous drainage and visual morbidity. Early surgical management is aimed at increasing available intracranial and orbital volume while reconstructing the cranial vault to accommodate continued growth.

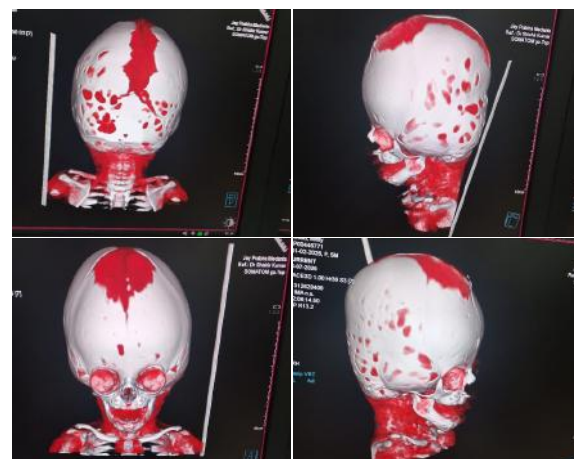
Clinical Presentation

A 5-month-old female infant presented with progressive cranial deformity. She had initially been evaluated at one month of age for a small head circumference, mild proptosis and maxillary hypoplasia.

She was the first child, with no family history of craniosynostosis. Developmental milestones were appropriate for age, she responded to sound, and there was no syndactyly or polydactyly.

On examination, she had a tall, oxycephalic cranial configuration with severe proptosis. Multiple prominent scalp veins were visible over the calvarium, and the anterior fontanelle was bulging and tense.

Evaluation and Diagnosis



3D CT reconstruction showing multisuture craniosynostosis with relative sagittal suture preservation

Three-dimensional CT reconstruction demonstrated extensive multisuture craniosynostosis involving the bilateral coronal, metopic and bilateral lambdoid sutures, with relative preservation of the sagittal suture.

In view of the extensive suture fusion, progressive cranial deformity and marked orbital involvement, early cranial expansion with orbital reconstruction was planned.

Surgical Management

The child underwent three-dimensional cranial vault remodelling with fronto-orbital advancement.

Multiple osteotomies and controlled mobilisation of the calvarial segments were performed. Perpendicular cuts enabled the thin infant calvarial bones to be reshaped and repositioned. The frontal bone was extensively remodelled to improve the forehead contour and provide additional space for the growing brain.

The pericranium was preserved over the calvarial segments to maintain vascularised tissue and support subsequent osteogenesis.

Given the severe proptosis and restricted orbital volume, the bilateral supraorbital bars and superior orbital components were mobilised as a unit and advanced anteriorly. This increased intraorbital volume while also contributing to reconstruction of the anterior cranial vault and frontal contour.

Particular attention was paid to orbital position, facial anthropometry and interorbital relationships to minimise the risk of secondary orbital asymmetry.

Fixation was tailored to the thin infant calvarium. Absorbable fixation was used for most of the reconstruction, with selective titanium reinforcement at key osteotomy junctions where additional structural stability was required.

Recovery and Outcome

The child tolerated the procedure well.

Postoperatively, there was a marked improvement in cranial shape with significant reduction in proptosis. The reconstructed cranial vault provided increased intracranial and intraorbital volume while establishing a more appropriate craniofacial contour.



Pre - and postoperative image of the patient

She remains under regular multidisciplinary follow-up for cranial growth, ocular status and neurodevelopment.

Clinical Perspective

Multisuture craniosynostosis requires early, individualised and multidisciplinary management. In this case, surgery was planned as a three-dimensional reconstruction rather than simply a release of fused sutures, addressing both restricted cranial volume and severe orbital involvement.

Fronto-orbital advancement was particularly important in addressing the marked proptosis and restricted orbital volume, while cranial vault remodelling created additional space for continued brain growth. Preservation of the pericranium and fixation tailored to infant bone quality supported reconstruction while allowing for subsequent growth.

Long-term multidisciplinary follow-up remains important, as midface hypoplasia, orbital abnormalities and other craniofacial changes may become more apparent as the child grows.

Dr. Shishir Kumar

Consultant - Neurosciences
Medanta - Patna



Case Study

Medanta - Lucknow

Paediatric Necrotising Pneumonia with Persistent Bronchopleural Fistula

VATS Decortication Followed by Right Upper Lobectomy

Necrotising pneumonia in children can occasionally progress to extensive parenchymal destruction and pleural complications despite intensive medical management. Persistent bronchopleural fistula (BPF), recurrent pneumothorax and empyema may further complicate respiratory recovery and necessitate surgical intervention while preserving viable lung wherever possible.

Clinical Presentation

A 4-year-old girl presented with a six-day history of fever, cough and cold followed by rapidly progressive respiratory

distress. She was critically ill with severe hypoxaemia and septic shock, requiring mechanical ventilation and intensive PICU support.

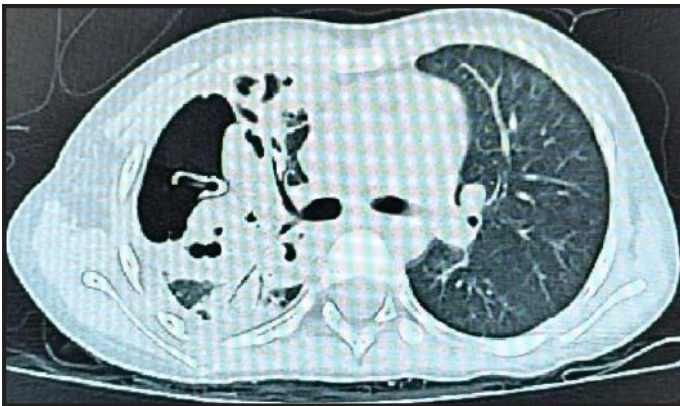
She was diagnosed with severe community-acquired pneumococcal necrotising pneumonia. Endotracheal culture grew *Streptococcus pneumoniae*, and antimicrobial therapy was modified according to sensitivity.

Evaluation and Diagnosis

The child developed severe acute respiratory distress syndrome (ARDS) and required approximately two weeks of mechanical ventilation with close respiratory and haemodynamic monitoring. Her course was complicated by recurrent right pneumothorax requiring intercostal drainage.

Following initial stabilisation, she was successfully extubated and transitioned to non-invasive respiratory support. However, recurrent respiratory deterioration with a persistent air leak raised suspicion of an underlying bronchopleural fistula.

HRCT demonstrated a moderate right hydropneumothorax, predominant collapse and necrotic involvement of the right upper lobe, cystic/bronchiectatic changes and multiple suspected bronchopleural fistulae. Despite intercostal drainage and intensive medical management, the air leak persisted, indicating an ongoing structural pulmonary complication requiring surgical management.

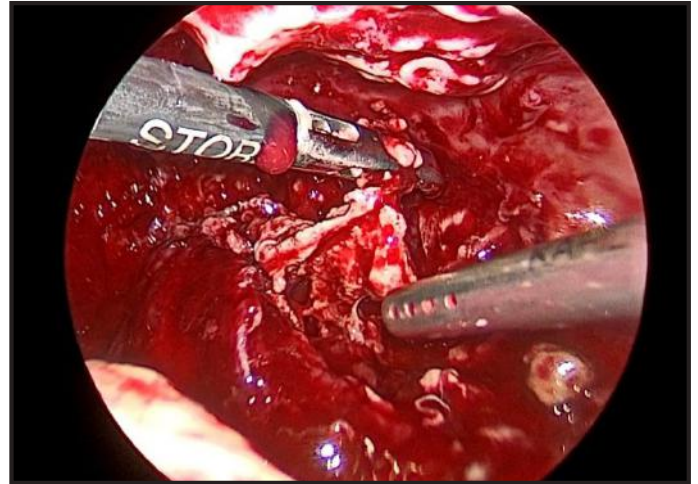


HRCT showing right hydropneumothorax with necrotic changes in the right upper lobe

Surgical Management

A stepwise surgical approach was adopted, initially aimed at controlling the pleural infection and bronchopleural fistulae while preserving viable lung.

On 7 August 2026, thoracoscopy revealed thick fibrinopurulent empyema, dense parietal and visceral pleural peel and multiple BPFs involving the right upper and middle lobes. The right middle and lower lobes were viable and expanded satisfactorily following decortication. VATS decortication with closure of the identified BPFs was therefore performed.



Thoracoscopic view during VATS decortication and BPF closure



Intraoperative view during right upper lobectomy and BPF closure

Although the child initially improved, persistent BPF and irreversible necrosis of the right upper lobe necessitated definitive surgery. On 24 August 2026, she underwent thoracotomy, right upper lobectomy, BPF closure and intercostal drainage, while the viable right middle and lower lobes were preserved.



Postoperative chest radiograph following right upper lobectomy and BPF repair

Anaesthetic management was challenging because of the difficulty of achieving left-lung isolation in a young child. A paediatric fiberoptic scope facilitated lung isolation, while intraoperative ventilation, recurrent bronchospasms and air leak from the BPF were carefully managed. The child was extubated on the operating table with thoracic epidural analgesia.

Recovery and Outcome

Following surgery, the PICU team continued respiratory support and monitoring, antimicrobial therapy, nutritional support and postoperative care.

After a prolonged course complicated by pneumococcal necrotising pneumonia, septic shock, severe ARDS, recurrent pneumothorax, empyema, hydropneumothorax and persistent BPF, the child gradually recovered and was discharged in a stable clinical condition.

Clinical Perspective

This case demonstrates the value of a stepwise surgical strategy in complicated necrotising pneumonia when persistent air leak indicates significant structural lung damage. Initial VATS decortication allowed control of pleural disease and assessment of lung viability while preserving the right middle and lower lobes.

Persistence of the BPF with irreversible right upper-lobe necrosis subsequently required lobectomy. The approach enabled definitive treatment of the diseased lobe while preserving the remaining viable right lung, supported by coordinated paediatric surgical, anaesthetic and intensive-care management.

Dr. Shyamendra Pratap Sharma

Senior Consultant - Paediatric Surgery
Medanta - Lucknow



Dr. Atahar Jamal

Associate Director - Paediatrics Critical Care
Medanta - Lucknow



Dr. Nikita Tripathi

Consultant - Paediatrics Critical Care
Medanta - Lucknow



Spotlight

Health Decode: Integrating Genomics, Biomarkers and Imaging for Preventive Risk Assessment

Now available at Medanta
Mediclinic, Golf Course Road

Medanta's Health Decode programme brings together genomics, precision biomarkers, advanced imaging, health-risk assessment and multidisciplinary specialist input within a single preventive health pathway. The objective is to identify potential health risks earlier and use the combined findings to guide a more personalised prevention plan.

The programme is available in two formats. Heart Health Decode focuses on cardiovascular and metabolic risk and includes 169 precision biomarkers, advanced cardiac imaging, specialist consultations and a 324-gene metabolic profile. The assessment covers areas such as coronary artery disease risk, inherited cardiac conditions and lipid and metabolic disorders.

Complete Health Decode extends the evaluation across multiple organ systems. In addition to the core biomarker and imaging assessment, it includes whole exome sequencing of more than 23,000 genes and whole-body MRI, with genomic assessment covering cancer predisposition, cardiovascular, metabolic, neurological and other inherited multi-system risks.

The pathway integrates pre-consultation, health-risk assessment, biomarker and genomic screening, advanced imaging and multispeciality review. The findings are then brought together to develop an individualised preventive roadmap, supported by specialist consultations and genetic counselling, where relevant.

Welcome Onboard



Dr. Nidhi Malhotra

Director - Endocrinology and Diabetes
Medanta - Noida

Dr. Malhotra specialises in endocrinology and diabetes, with expertise in diabetes, obesity and metabolic syndrome, thyroid and parathyroid disorders, and pituitary and adrenal diseases. Her clinical interests also include metabolic bone disease and endocrine emergencies.



Dr. Anne Srikanth

Senior Consultant and Head - Medical Oncology
Medanta - Ranchi

Dr. Srikanth specialises in medical oncology, with expertise in solid tumours including breast, gynaecological, and head and neck cancers, as well as haematological malignancies. Her expertise includes chemotherapy, immunotherapy and targeted therapy.



Dr. Pankaj Patawari

Senior Consultant - Endocrinology and Diabetes
Medanta - Patna

Dr. Patawari specialises in endocrinology and diabetes, with expertise in diabetes, thyroid disorders, obesity and metabolic disorders. His clinical interests include pituitary, adrenal and reproductive endocrine disorders.



Dr. Abhishek Paul

Consultant - Neonatology
Medanta - Lucknow

Dr. Paul specialises in neonatology, with expertise in neonatal intensive care, neonatal resuscitation, advanced respiratory support and the management of critically ill newborns.



Dr. Subhas Das

Consultant - Paediatrics
Medanta - Noida

Dr. Das specialises in paediatrics and paediatric critical care, with expertise in paediatric emergencies, advanced respiratory support and the management of critically ill children.



Dr. Rana Ranvijay Pratap Pathak

Consultant - Orthopaedics
Medanta - Noida

Dr. Pathak specialises in orthopaedics, with expertise in joint replacement and preservation, sports injuries, arthroscopic surgery and minimally invasive orthopaedic surgery.



Dr. Siddharth Lath

Consultant - Medical Oncology
Medanta - Noida

Dr. Lath specialises in medical oncology, with expertise in solid and haematological malignancies, bone marrow transplantation, cellular therapies, chemotherapy, immunotherapy and targeted therapy.



Dr. Amar Narayan Shaw

Consultant - Interventional Radiology
Medanta - Patna

Dr. Shaw specialises in interventional radiology, with expertise in neuro-, body-, and peripheral-endovascular interventions, onco-interventions, and non-vascular procedures.



Dr. Sudhanshu Mishra

Associate Consultant - Internal Medicine
Medanta - Gurugram

Dr. Mishra specialises in internal medicine, with expertise in adult primary care, diabetes, hypertension, cardiometabolic disorders and preventive medicine.





Dr. Aditya Malik

Associate Consultant - Orthopaedics
Medanta - Noida

Dr. Malik specialises in orthopaedics, with expertise in shoulder and elbow surgery, joint replacement, sports injuries, arthroscopy and complex trauma.



Dr. Saurabh Mishra

Associate Consultant - Respiratory and Sleep Medicine
Medanta - Lucknow

Dr. Mishra specialises in respiratory and sleep medicine, with expertise in complex respiratory disorders, interventional pulmonology, sleep-related breathing disorders and respiratory critical care.



Dr. Parul Saxena

Associate Consultant - Mental Health
Medanta - Lucknow

Dr. Saxena specialises in mental health, with expertise in substance use disorders, schizophrenia, depression, anxiety disorders and neuromodulation therapies.



IN CASE OF **EMERGENCY** DIAL **1068**

Medanta Network

Hospitals

Medanta - Gurugram

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info@medanta.org

Medanta - Lucknow

Sector - A, Pocket - 1, Sushant Golf City,
Amar Shaheed Path, Lucknow | Tel: 0522-4505-050

Medanta - Patna

Jay Prabha Medanta Super-Speciality Hospital,
Kankarbagh Main Road, Kankarbagh Colony, Patna
Tel: 0612-3505-050

Medanta - Ranchi

Medanta Abdur Razzaque Ansari Memorial
Weavers' Hospital,
P.O. Irba, P.S. Ormanjhi, Ranchi | Tel: 1800-891-3100
Medanta Hospital, Ranchi
NH 33, P.O. Irba, P.S. Ormanjhi, Ranchi | Tel: 1800-891-3100

Medanta - Indore

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Tel: 0120-3141-414

Mediclinics

Defence Colony

E - 18, Defence Colony, New Delhi | Tel: 011-4411-4411

Cybercity

UG 15/16, DLF Building 10 C, DLF Cyber City,
Phase II, Gurugram | Tel: 0124-4141-472

Subhash Chowk

Plot No. 743P, Sector - 38, Subhash Chowk,
Gurugram | Tel: 0124-4834-547

Cyber Park

Shop No. 16 and 17, Tower B, Ground Floor,
DLF Cyber Park, Plot No. 405B, Sector-20, Udyog
Vihar, Gurugram | Tel: 93541-41472

Golf Course Road

562 SP, Sector 27, Golf Course Road,
Gurugram | Tel: 0124-6930-099

Ranchi

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Vendor Market, Ranchi | Tel: 1800-891-3100

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Ambika Shrine, Beltola-Basistha Road, Last Gate,
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