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THE EXCHANGE

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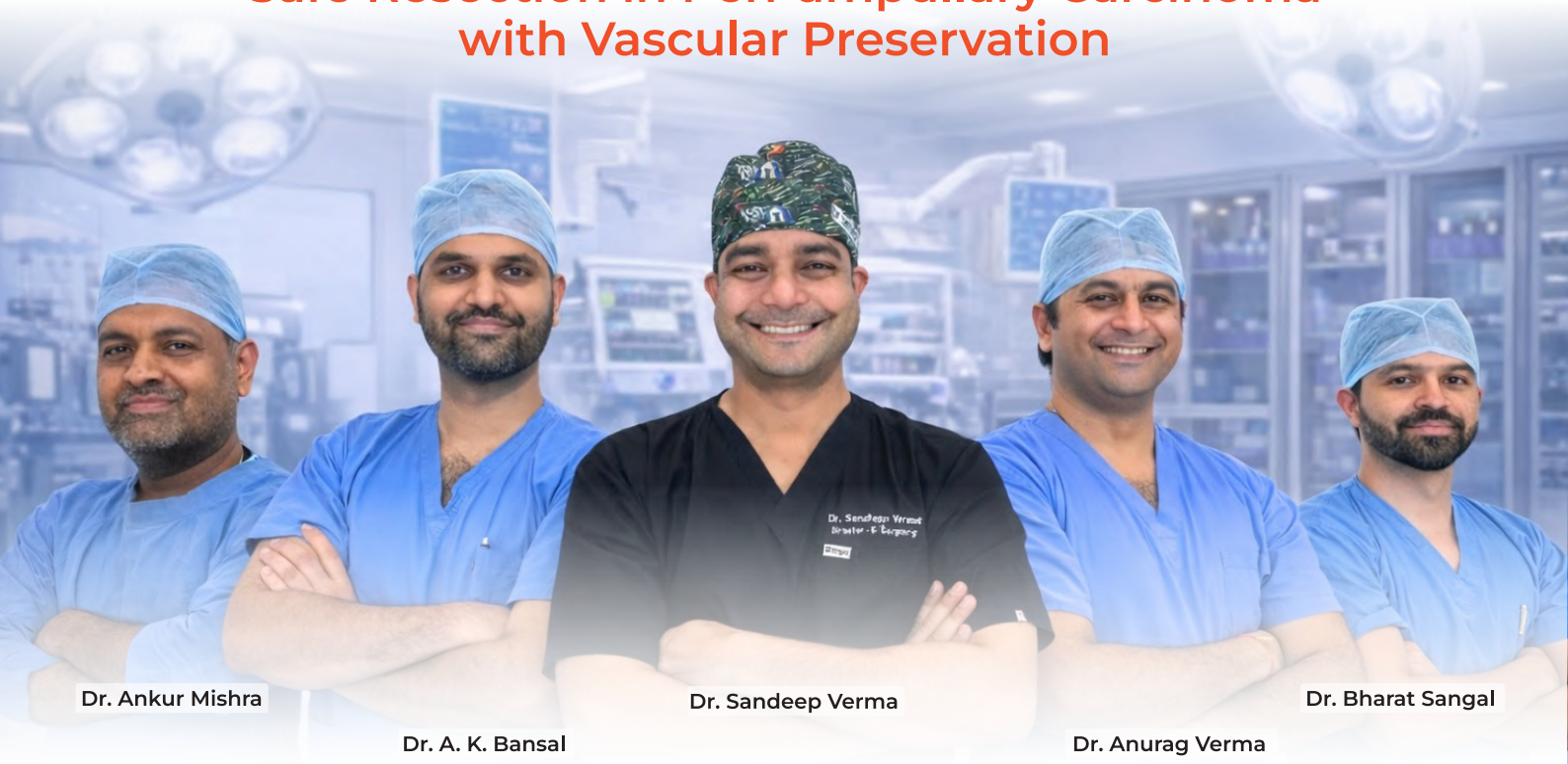
Clinical Innovations | New Milestones | Better Outcomes

Cover Feature

Complex Robotic Whipple's Procedure at Medanta Lucknow

Safe Resection in Peri-ampullary Carcinoma with Vascular Preservation



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Division of GI Surgery, GI Oncology and Bariatric Surgery

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Other achievements and clinical advancements across Medanta

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Feature Story
Medanta - Lucknow

Robotic Whipple's Procedure in Peri-Ampullary Carcinoma

Safe Resection with Vascular Preservation and Smooth Recovery

Peri-ampullary carcinoma often presents with obstructive jaundice and requires timely surgical intervention for optimal outcomes. Robotic pancreaticoduodenectomy (Whipple's procedure) offers the advantage of enhanced precision, better visualisation, and improved preservation of critical vascular structures, particularly in anatomically complex cases. This case highlights the successful management of peri-ampullary carcinoma with variant arterial anatomy using a robotic approach, demonstrating safe resection, meticulous vascular preservation, and smooth post-operative recovery.

Case Study

A 55-year-old female presented to Medanta – Lucknow with painless progressive jaundice for one month, associated with loss of appetite and occasional melena. There was no history of vomiting, fever, or abdominal lump. She was a known hypertensive on regular medication with no prior surgical history.

The patient had previously undergone Endoscopic Retrograde Cholangiopancreatography (ERCP) with common bile duct (CBD) stenting; however, jaundice and poor appetite persisted, following which she was referred for further evaluation and definitive management.

Diagnostic Evaluation

Tri-phasic contrast-enhanced CT of the abdomen showed moderate common bile duct dilatation with abrupt cut-off at the ampulla, dilatation of the main pancreatic duct with moderate intrahepatic biliary radical dilatation, and multiple peri-portal lymph nodes. A replaced right hepatic artery arising from the superior mesenteric artery was identified, with the CBD stent in situ.

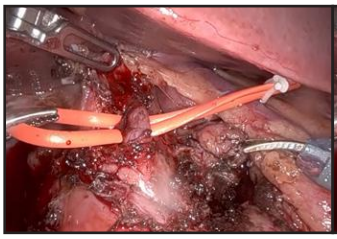
The clinical impression was peri-ampullary carcinoma with variant arterial anatomy.

Surgical Challenge

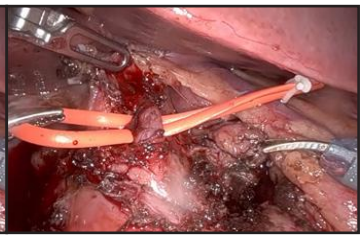
Whipple's procedure is among the most complex abdominal operations with considerable morbidity risk. In this case, operative difficulty was further increased due to the presence of a replaced right hepatic artery and dense adhesions in the hepatoduodenal ligament secondary to prior CBD stenting. Precise robotic dissection was therefore essential to safely preserve critical vascular structures.

Operative Management

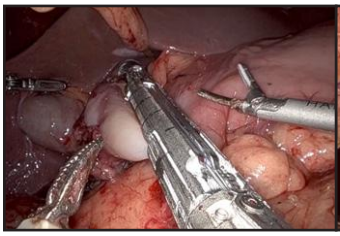
A robotic Whipple's procedure was performed. Intraoperatively, there was no evidence of liver, omental, or peritoneal metastases, and no ascites was present. Large lymph nodes were noted at the common hepatic artery and hepatoduodenal ligament region. The common bile duct measured 18 mm and the pancreatic duct measured 8 mm, with a soft pancreas. A replaced right hepatic artery was confirmed, while the remaining arterial anatomy was normal.



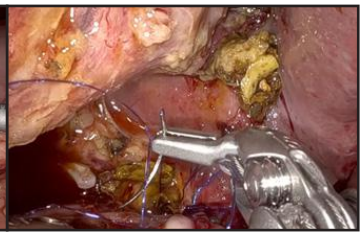
Robotic identification and secure ligation of the gastroduodenal artery



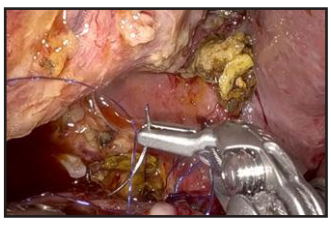
Creation of the superior mesenteric vein tunnel with precise robotic dissection



Robotic stapled gastric transection during pancreatico-duodenectomy



Single-layer robotic hepatico-jejunostomy for biliary reconstruction



Duct-to-mucosa robotic pancreatico-jejunostomy performed with precision

Reconstruction included |a two-layer duct-to-mucosa pancreatico-jejunostomy, single-layer continuous 3-0 vicryl hepatico-ejunostomy, and stapled gastro-jejunostomy. A feeding jejunostomy was placed using a 12 Fr Ryle's tube.

The cut section revealed a 1 × 1 cm proliferative mass at the ampulla with the CBD stent in situ. Total operative time was 480 minutes with blood loss of 50 ml.

Post-operative Course

The patient was extubated and shifted to the ICU. On post-operative day one, she was ambulatory and tolerated oral liquids. Recovery remained uneventful with no infection, sepsis, pancreatic fistula, bleeding, or delayed gastric emptying. She was discharged on post-operative day five on a normal oral diet, requiring minimal analgesics.

Clinical Outcome and Significance

The robotic approach enabled minimally invasive execution of one of the most technically demanding abdominal procedures while preserving critical vascular anatomy. Avoidance of a large incision contributed to reduced post-operative pain and early ambulation. Robotic precision facilitated accurate dissection and secure pancreatico- and hepatico-jejunostomy, reducing the risk of pancreatic fistula and bile leak.

The patient's smooth recovery and early discharge reflect advanced expertise in robotic pancreatic surgery and comprehensive peri-operative care.

Dr. Sandeep Kumar Verma
Director - GI Surgery
Medanta - Lucknow

Dr. Bharat Sangal
Consultant - GI Surgery
Medanta - Lucknow

Case Study
Medanta - Gurugram

Multisystemic Transthyretin Amyloidosis

From Gastrointestinal Involvement to Non-Invasive Cardiac Diagnosis

Transthyretin amyloidosis (ATTR) is an infiltrative disorder characterised by extracellular deposition of misfolded transthyretin protein, most commonly affecting the heart and peripheral nerves. Although cardiac involvement is typical, gastrointestinal manifestations may precede overt cardiac dysfunction, making diagnosis challenging. This case highlights how biopsy-proven gastrointestinal amyloid deposition prompted systematic evaluation and led to non-invasive confirmation of ATTR cardiac amyloidosis after exclusion of AL amyloidosis.

Case Study

A 74-year-old female from Rwanda had been diagnosed with restrictive cardiomyopathy six months earlier during evaluation for a transient ischaemic attack. The underlying aetiology had not been investigated at that time, and she was managed symptomatically.

She presented to Medanta - Gurugram with a 1–2 month history of chronic diarrhoea, characterised by semi-solid to watery stools occurring three to four times daily. There was no blood in stools, abdominal pain, or significant constitutional symptoms. On examination, she was haemodynamically stable with no signs of overt volume overload. Cardiovascular, abdominal, and neurological examinations were unremarkable.

Diagnostic Evaluation

Routine stool examination was normal and HIV testing was negative. Colonoscopy revealed colonic ulcers, and biopsy with Congo red staining confirmed amyloid deposition in the gastrointestinal tract.

Given the background of restrictive cardiomyopathy, cardiac reassessment was undertaken. Electrocardiography demonstrated low-voltage limb leads with poor R-wave progression. Transthoracic echocardiography showed concentric left ventricular wall thickening, biatrial enlargement, diastolic dysfunction, preserved ejection fraction, and a characteristic apical-sparing pattern on longitudinal strain imaging, strongly suggestive of cardiac amyloidosis.

A comprehensive haematologic evaluation was performed to determine the amyloid subtype. Serum protein electrophoresis, serum free light chain assay, and serum and urine immunofixation electrophoresis were normal. Bone marrow biopsy did not reveal increased plasma cells. AL amyloidosis was therefore excluded.

Although gastrointestinal involvement initially made ATTR less likely, further evaluation was pursued after AL amyloidosis was ruled out and in view of the patient's African descent, where hereditary ATTR is more prevalent. Technetium-99m pyrophosphate (PYP) scintigraphy demonstrated intense myocardial tracer uptake (visual grade 3) with a heart-to-contralateral lung ratio of approximately 1.81, confirming ATTR cardiac amyloidosis in the absence of monoclonal protein.

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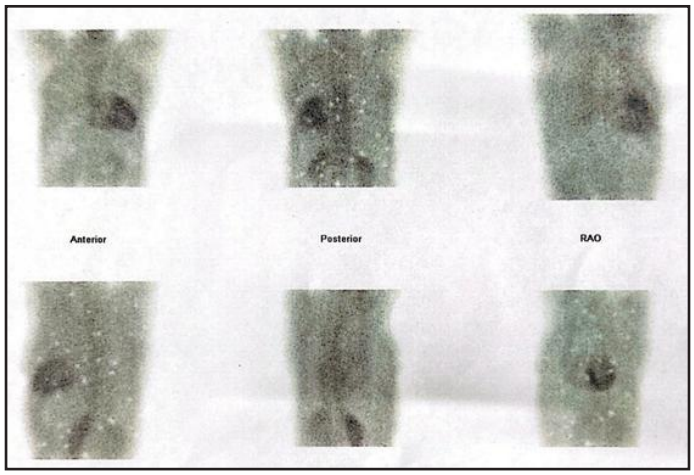


Technetium-99m Pyrophosphate scintigraphy showing grade 3 myocardial uptake with H/CL ratio ~1.81, consistent with ATTR cardiac amyloidosis

Clinical Management

Management focused on cautious optimisation of heart failure therapy in the setting of restrictive cardiomyopathy. Given the preload-dependent physiology in amyloid cardiomyopathy, medications were introduced judiciously.

The patient was maintained on low-dose bisoprolol (1.25 mg daily) and eplerenone (25 mg daily), with close monitoring to avoid hypotension and worsening symptoms. Diuretic therapy was adjusted carefully to prevent excessive preload reduction. In view of her prior transient ischaemic attack, thromboembolic risk was reassessed despite the absence of documented atrial fibrillation.

Following confirmation of ATTR cardiac amyloidosis, the patient was counselled regarding disease-modifying therapy. Genetic testing to differentiate wild-type from hereditary ATTR was discussed; however, she declined further evaluation due to concerns about potential psychological implications for future generations.

Outcome

The patient was discharged in stable condition with a confirmed non-invasive diagnosis of ATTR cardiac amyloidosis and advised structured cardiology follow-up for long-term disease-directed management.

Clinical Significance

In patients with restrictive cardiomyopathy and unexplained systemic features such as gastrointestinal involvement, systemic amyloidosis should be actively considered. The combination of low-voltage ECG and apical-sparing strain pattern provides important diagnostic clues. Exclusion of AL amyloidosis permits non-invasive confirmation of ATTR using PYP scintigraphy, enabling timely and appropriate management.

Dr. Tejasvini Vaid

Consultant - Medical Oncology and Haemato Oncology

Medanta - Gurugram

Case Study

Medanta - Patna

Hepatosplenic Gamma Delta T-Cell Lymphoma in a Young Adult

Successful Management with Allogeneic Haploidentical Stem Cell Transplantation

Hepatosplenic gamma delta T-cell lymphoma is a rare and aggressive peripheral T-cell lymphoma, typically affecting adolescents and young adults. It commonly presents with hepatosplenomegaly and cytopenias, often without significant lymphadenopathy, and is associated with poor prognosis. Early recognition and timely referral for definitive therapy, including stem cell transplantation, are critical for improving outcomes.

Case Study

A 19-year-old male presented to Medanta - Patna with a two-month history of persistent fever, disturbed sleep, anorexia, cough, and cold. On examination, he was febrile and markedly pale, with hepatomegaly, massive splenomegaly, and small-volume lymphadenopathy. Other systemic examinations were unremarkable. Initial laboratory evaluation revealed pancytopenia, raising suspicion of an underlying haematological malignancy.

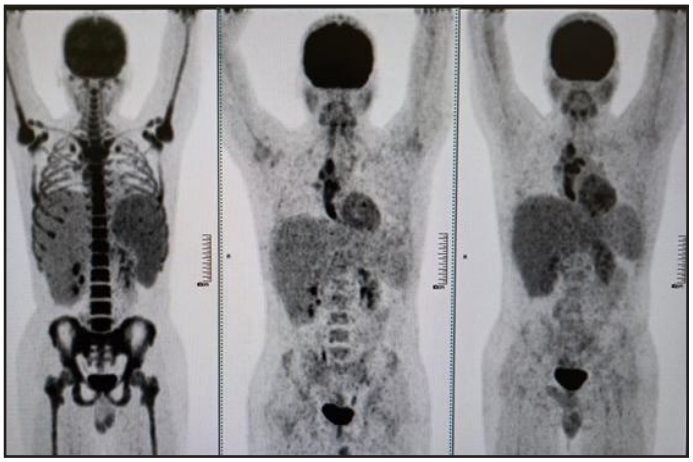
Clinical Evaluation and Diagnosis

Bone marrow aspiration and biopsy demonstrated haemolymphoid malignancy with approximately 20% atypical lymphoid cells. Flow cytometry showed a T-cell lymphoproliferative disorder with a bright TCR gamma/delta population, loss of CD5, and partial downregulation of CD2. FISH analysis detected isochromosome 7q in a significant proportion of cells, supporting the diagnosis of hepatosplenic gamma delta T-cell lymphoma.

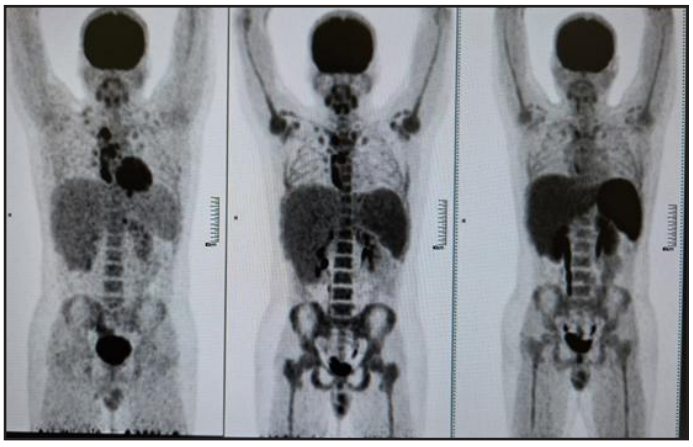
Imaging revealed gross hepatosplenomegaly with FDG-avid mediastinal lymph nodes and diffuse marrow uptake. Infective workup, including EBV PCR and scrub typhus PCR, was negative.

Treatment and Clinical Course

The patient was initiated on ICE chemotherapy and completed four cycles. Interim PET-CT showed reduction in hepatosplenomegaly with resolution of splenic and marrow metabolic activity, although mediastinal lymph nodes remained FDG-avid. Biopsy of these nodes showed granulomatous inflammation without evidence of malignancy or tuberculosis.



Serial PET-CT demonstrating hepatosplenomegaly with diffuse marrow FDG uptake at presentation and partial metabolic response following initial chemotherapy



Follow-up PET-CT demonstrating disease relapse with renewed FDG uptake in spleen and marrow, followed by metabolic remission post haploidentical stem cell transplantation

Subsequently, the patient developed disease relapse with fever, worsening anaemia, and thrombocytopenia. Repeat marrow examination confirmed residual lymphoma, and PET-CT demonstrated renewed metabolic activity in the spleen, marrow, and lymph nodes. Salvage DHAP chemotherapy was administered, and three cycles resulted in partial metabolic response.

Definitive Management

Given the aggressive disease course and relapse, the patient underwent allogeneic haploidentical stem cell transplantation from his brother, an 8/12 HLA-matched donor. The transplant course was uneventful, with successful engraftment and stable haematological recovery. The patient was discharged in stable condition under close follow-up.

Outcome

Post-transplant, the patient achieved clinical stability with no immediate transplant-related complications. He remains under regular surveillance for disease status and graft function.

Discussion

Hepatosplenic gamma delta T-cell lymphoma is an uncommon but highly aggressive lymphoma seen in young individuals, often presenting with cytopenias and marked hepatosplenomegaly. Diagnosis requires a combination of immunophenotyping, cytogenetics, and imaging. Conventional chemotherapy alone is frequently insufficient, and early consideration of allogeneic stem cell transplantation offers the best chance for durable remission.

Timely recognition, appropriate risk stratification, and early referral to specialised centres are essential to optimise survival in this rare entity.

Dr. Santosh Kumar

Consultant - Paediatric Oncology, Haematology and BMT Physician

Medanta - Patna

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Milestone

Medanta Gurugram Ranked No. 1 Hospital in India in Newsweek 2026 Rankings

Medanta – The Medicity, Gurugram has been ranked the No. 1 hospital in India in Newsweek's World's Best Hospitals 2026 rankings

Over the past six consecutive years, Medanta was recognised as India's Best Private Hospital. In 2026, the institution has progressed further to secure the No. 1 position overall across both private and public healthcare institutions in the country. The ranking reflects Medanta's continued focus on clinical outcomes, medical innovation, patient safety and multidisciplinary care. It also marks an important milestone in the hospital's journey of building world-class tertiary and quaternary care services.

Medanta continues to advance complex care programmes through cutting-edge technology, strong clinical governance and collaboration across specialties, serving patients from across India and internationally.

Spotlight

Medanta Launches 24x7 Chest Trauma Support Service

Medanta has launched a 24x7 chest trauma support service to help doctors manage complex chest injuries. Many primary and secondary care centres handle such cases without immediate access to thoracic surgery expertise, where timely decisions can make the difference between recovery and loss.

Led by Dr. Arvind Kumar, Chairman, Institute of Chest Surgery, Chest Onco-Surgery and Lung Transplant, Medanta - Gurugram, the service enables doctors to connect instantly with Medanta's chest surgery team to review imaging, discuss clinical parameters and plan timely intervention.

Support includes real-time guidance for assessment and early decision-making, assistance with stabilisation and chest tube insertion, identification of patients needing advanced thoracic surgical care, coordinated transfer when required, and training programmes and webinars for doctors.

The service will initially cover Haryana, Punjab and Western Uttar Pradesh. Medanta will also create a chest trauma registry to track injury patterns, interventions and outcomes, helping strengthen trauma care systems across the region.

Welcome Onboard

Dr. Neeta Kevlani
Director - NICU and Neonatology
Medanta - Patna

Dr. Kevlani specialises in advanced neonatal intensive care and management of preterm and high-risk newborns. She leads neonatal services with a strong focus on clinical excellence, protocol-driven care and quality improvement in neonatal outcomes.

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Dr. Ameya Bihani

Director - Head and Neck Surgical Oncology
Medanta - Indore

Dr. Bihani specialises in the surgical management of head and neck cancers, including oral, thyroid and salivary gland tumours, as well as complex neck masses and tumours.

Dr. Kumar Shivam

Associate Consultant - Clinical Immunology and Rheumatology
Medanta - Gurugram

Dr. Shivam specialises in autoimmune rheumatic diseases, including rheumatoid arthritis, lupus and vasculitis, and advanced therapies.

Dr. Esha Singhal

Consultant - Dermatology
Medanta - Noida

Dr. Singhal specialises in clinical and aesthetic dermatology, including lasers, injectables, hair restoration, and acne, psoriasis and pigmentary disorders.

Dr. Asheesh Kumar Gupta

Associate Consultant - Nephrology and Kidney Transplant Medicine
Medanta - Gurugram

Dr. Gupta specialises in renal transplantation, chronic kidney disease, acute kidney injury and dialysis therapies.

Dr. Om Prakash Kunwar

Consultant - Neurology
Medanta - Ranchi

Dr. Kunwar specialises in stroke care, epilepsy and seizure disorders, movement disorders, headache and migraine management, CNS infections and peripheral neuropathies.

Dr. Rahul Kumar Rohit

Associate Consultant - Respiratory and Sleep Medicine
Medanta - Patna

Dr. Rohit specialises in obstructive airway diseases, interstitial lung diseases, tuberculosis and sleep-disordered breathing.

Dr. Kumari Sony

Associate Consultant - Paediatric Cardiology
Medanta - Patna

Dr. Sony specialises in congenital and acquired heart disease in children, including paediatric and foetal echocardiography and transcatheter interventions.

Dr. Sarvjeet Kumar

Associate Consultant - Gastroenterology
Medanta - Patna

Dr. Kumar specialises in diagnostic and therapeutic endoscopy, ERCP and management of gastrointestinal and hepatobiliary disorders.

Dr. Mukesh Kumar

Associate Consultant - Gastroenterology
Medanta - Patna

Dr. Kumar specialises in therapeutic endoscopy, ERCP and management of chronic liver disease and complex gastrointestinal disorders.

Dr. Kumar Abhinav

Associate Consultant - Rheumatology and Clinical Immunology
Medanta - Patna

Dr. Abhinav specialises in autoimmune diseases including rheumatoid arthritis, lupus and vasculitis, in both adults and children.

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Dr. Mousumi Saha

Associate Consultant - Anaesthesia

Medanta - Noida

Dr. Saha specialises in liver and kidney transplant anaesthesia, with expertise in complex procedures, high-risk perioperative care and advanced monitoring.

Dr. Shyamli

Associate Consultant - Obstetrics and Gynaecology

Medanta - Patna

Dr. Shyamli specialises in high-risk pregnancy management and minimally invasive gynaecological procedures, along with comprehensive obstetric and infertility care.

Dr. Hari Prasad M K

Associate Consultant - Nephrology and Kidney Transplant Medicine

Medanta - Lucknow

Dr. Prasad specialises in chronic kidney disease, dialysis care and kidney transplantation, with expertise in managing hypertension and diabetic kidney disease.

Dr. Himanshu Verma

Associate Consultant - Neurosurgery

Medanta - Patna

Dr. Verma specialises in cranial and spinal neurosurgery, neurotrauma and emergency neurosurgical care.

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

Medanta Network

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

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

Subhash Chowk
Plot No. 743P, Sector - 38, Subhash Chowk, Gurugram I 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 I Tel: 93541 41472

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

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Shah Corporate, Kutchary Road, Opp. Atal Smriti Vendor Market, Ranchi I Tel: 1800 891 3100

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