

Clinical samvad

Innovations in Diagnostics and Clinical Insights

QUARTERLY NEWSLETTER | ISSUE 4 | OCT. 2025



Since 1991



Dr. B. Lal

Clinical Laboratory

Serves Best, Serves All

From the Director's Desk

It is with immense pride and enthusiasm that I welcome you to the fourth edition of Clinical Samvaad, our quarterly magazine dedicated to advancing clinical diagnostics and strengthening the bond between science and patient care. The overwhelming response to our inaugural issue has reinforced our belief in the power of knowledge-sharing and collaboration, inspiring us to bring you even more insightful content in this edition.

At Dr. B. Lal Clinical Laboratory, we remain steadfast in our mission to provide clinicians with precise, reliable, and timely diagnostic insights. Our commitment to excellence continues to drive us as we integrate the latest technological advancements, innovative methodologies, and rigorous quality standards into our laboratory services. In this issue, we delve deeper into evolving diagnostic paradigms, sharing updates on novel testing approaches, case studies, and expert perspectives that can aid clinical decision-making.

Healthcare is an ever-evolving field, and diagnostics play a pivotal role in shaping patient outcomes. As we expand our capabilities across Lab Medicine, Infectious Disease, Autoimmunity and Allergy, Oncopathology, Molecular Biology, and Hospital Infection Control, our focus remains on empowering clinicians with state-of-the-art diagnostic solutions. Through Clinical Samvaad, we aim to keep you informed, engaged, and equipped with knowledge that elevates healthcare standards.

We sincerely appreciate your continued trust and collaboration. Together, let us embrace innovation and precision in diagnostics to achieve new milestones in patient care.

Warm Regards,

Dr. B. Lal Gupta

Managing Director, Dr. B. Lal Clinical Laboratory



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Case Study-
Advancing Thalassemia
Diagnosis: The Critical Role of
HPLC in Haemoglobin Analysis



Dr. Neelam Goyal
Consultant Pathologist,
Dr. B. Lal Clinical Laboratory

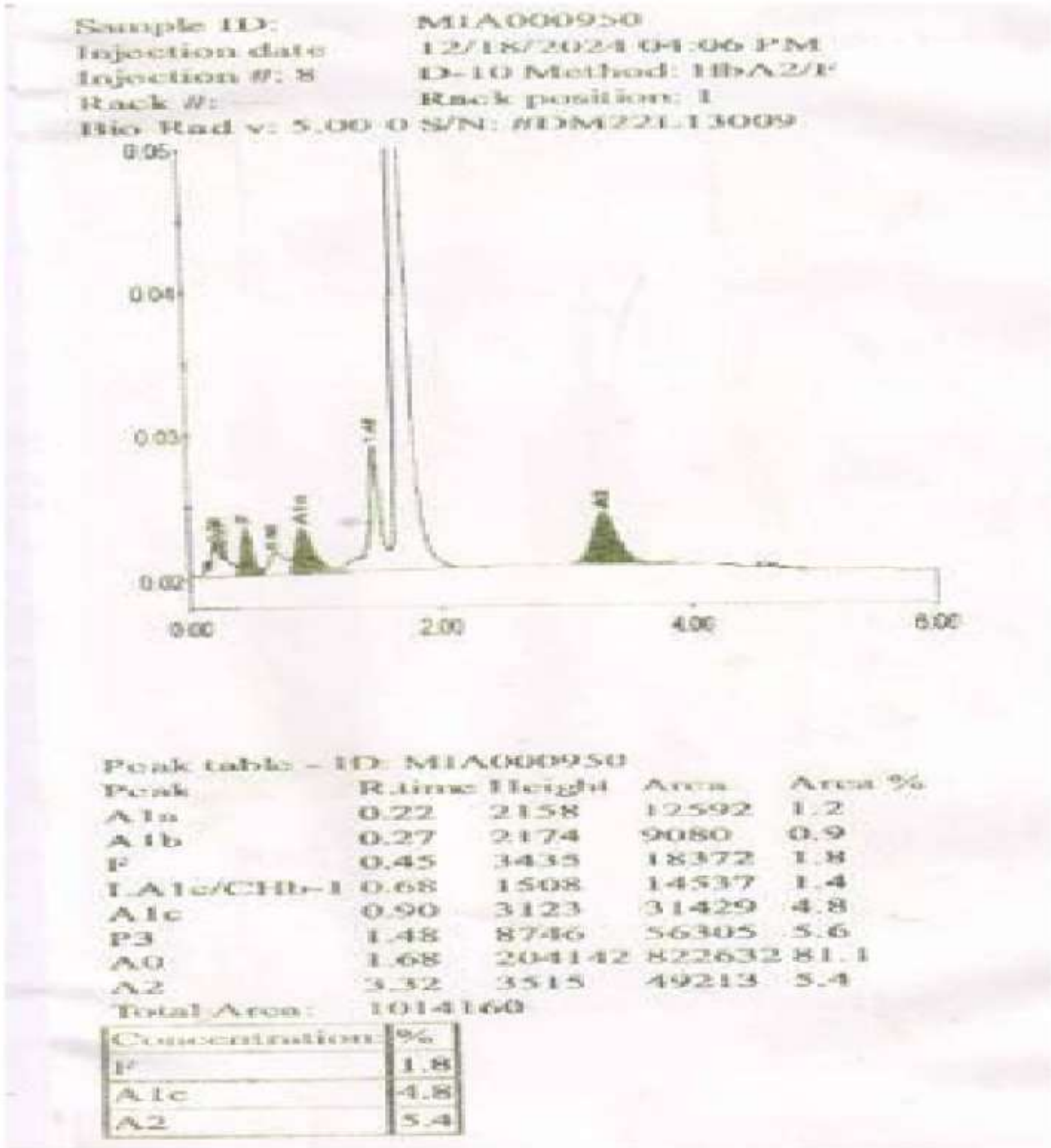
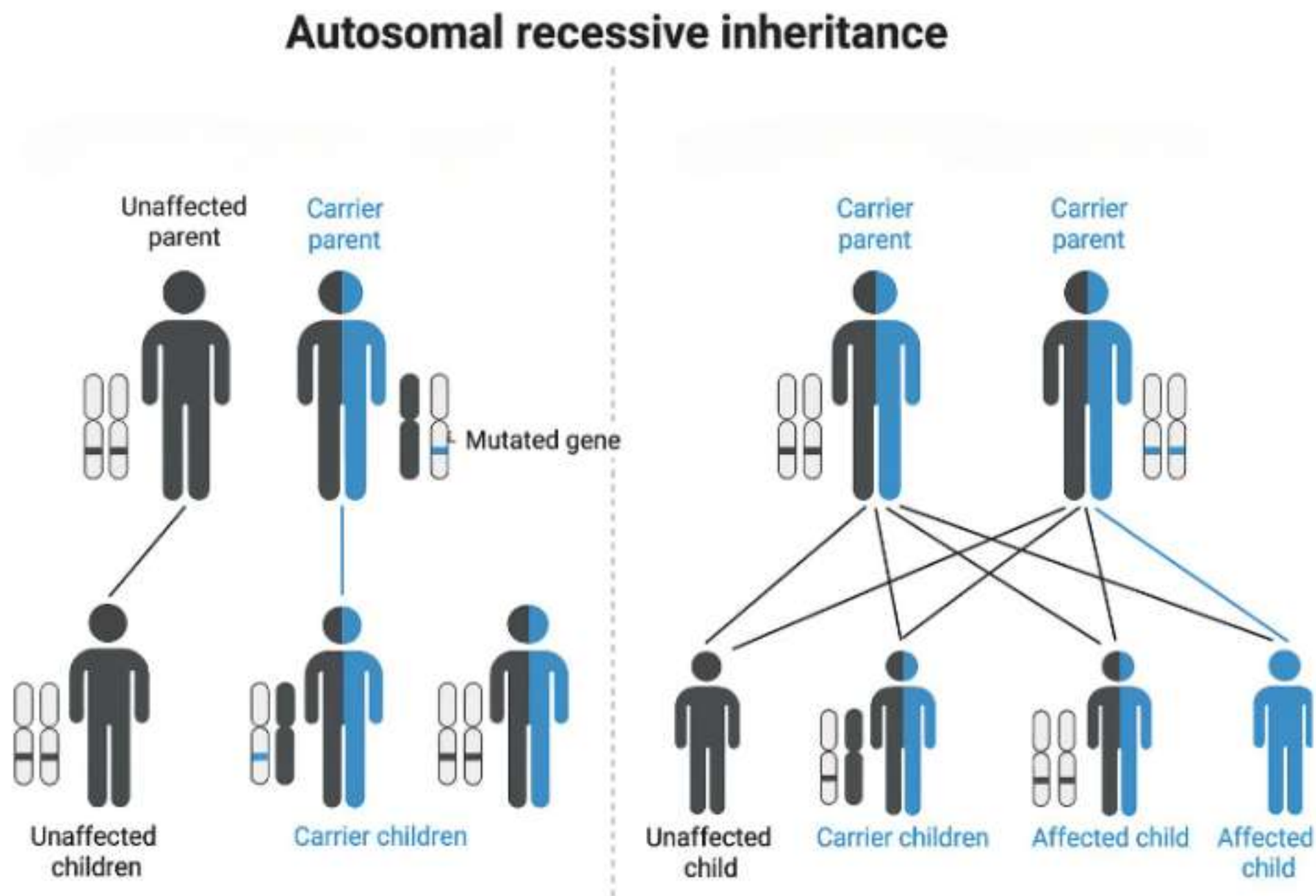
Introduction:

Thalassemia is one of the most common inherited monogenic disorders worldwide, with a carrier frequency ranging from 1–5% globally and approximately 3–4% in the Indian population. In certain communities, such as Sindhis, Punjabis, Gujaratis, and Bengalis, the prevalence can rise to 8–10%. India carries a significant burden, accounting for nearly 10% of the global thalassemia load, with an estimated 1,00,000 individuals affected by Beta Thalassemia syndromes. Early diagnosis and timely intervention are vital for improving survival, enhancing quality of life, and reducing future incidence through family screening and genetic counselling.

Case Study:

Case:

A male patient of 2 years was presented with on-and-off fever with fatigue for one month. Upon routine examination, haemoglobin level was found to be 10.8 g/dL, and RBC indices were low with increased RBC count. He was put on a nutrition therapy program for approximately 2 weeks. His condition remained the same, with haemoglobin level on the lower side and increased RBC levels even after nutrition therapy. Later, the doctor advised Hb electrophoresis as the diagnosis became elusive, and to find out the reason, if there is any genetic factor responsible for the condition. All the controls run during Hb electrophoresis were okay. There was no history of blood transfusion. Hb electrophoresis of the child showed increased A2, A0 and F peak levels. RBC counts were also on the higher side (6.37 X 10^6/uL). According to the CBC and Hb electrophoresis report of the patient, increased HbA2 levels and RBC number signified the presence of Beta Thalassemia trait. Now, to find out from where the child inherited the trait, mother was advised Hb electrophoresis. The Hb electrophoresis of the mother showed that the mother was compound heterozygous for the condition of Hemoglobin D and Beta Thalassemia trait. From further investigation, It was found that the father of the child's mother (Grandfather of the child) had Beta Thalassemia trait and the mother of the child's mother (Grandmother of the child) had HbD trait.



Discussion & Conclusion:

In this case, the grandson inherited a single Beta Thalassemia gene from the maternal side (grandfather). Since only one mutated gene was transmitted, the child presented with Beta Thalassemia trait rather than the major disease. Although the mother carried an HbD variant, it did not contribute to the Beta Thalassemia trait as the variants were distinct. Thus, the Beta Thalassemia trait was passed from the grandfather to the mother, and subsequently from the mother to the child. The mother, therefore, is a carrier of both Beta Thalassemia and HbD traits, while the child remains a carrier of the Beta Thalassemia trait.

Reference:

1. Colah, R., Italia, K., & Gorakshakar, A. (2017). Burden of thalassemia in India: the road map for control. Pediatric Hematology Oncology Journal, 2(4), 79-84.

2. El-Beshlawy, A., & El-Ghamrawy, M. (2019). Recent trends in treatment of thalassemia. Blood Cells, Molecules, and Diseases, 76, 53-58.

New Test Update

Carbamazepine

This test plays a crucial role in guiding the treatment strategy for patients with Epilepsy, Trigeminal Neuralgia, and Bipolar Disorder. It supports therapeutic drug monitoring by helping to determine optimal drug levels, prevent toxicity, assess patient compliance, and manage potential drug interactions. Clinicians may prescribe this test to evaluate therapeutic levels, adjust dosages, investigate inadequate clinical response, perform routine monitoring, or assess the impact of adding or discontinuing interacting medications.

The test details are as follows:

Test Name: Carbamazepine

Specimen: 2 ml of serum

Method: CMIA

Turn around Time: 1 day

References:

1. Patsalos PN. Therapeutic Drug Monitoring of Antiepileptic Drugs in Epilepsy: A 2018 Update. Ther Drug Monit. 2018;40(5):526-548.
2. Johannessen Landmark C, Patsalos PN. Drug Interactions Involving the Newer Antiepileptic Drugs—An Update. CNS Drugs. 2017;31(11):935–968.

Phenytoin

This test will aid in determining the appropriate treatment strategy and in the prevention of seizures. It is especially useful for narrowing the therapeutic range, monitoring for toxicity, assessing inter-individual variability, evaluating non-linear pharmacokinetics, and measuring free phenytoin levels. Clinicians may recommend this test during initial dose titration, in cases of suspected toxicity, breakthrough seizures, potential drug interactions, or when switching between formulations.

The test details are as follows:

Test Name: Phenytoin

Specimen: 2 ml of serum

Method: CMIA

Turn around Time: 1 day

References:

1. Perucca E. Clinical Pharmacokinetics of Phenytoin. Clin Pharmacokinet. 1982;7(5):450-473.
2. Patsalos PN, et al. Therapeutic Drug Monitoring of Antiepileptic Drugs in Epilepsy: A 2018 Update. Ther Drug Monit. 2018;40(5):526-548

Kappa & Lambda

Free Light Chains

This test detects abnormal kappa and lambda free light chains, aiding in the diagnosis of conditions like multiple myeloma, AL amyloidosis, and MGUS (Monoclonal Gammopathy of Undetermined Significance).It supports early detection, risk assessment, monitoring of MGUS, and tracking treatment response. Doctors may recommend it for unexplained kidney issues, nerve damage, or suspected plasma cell disorders.

The test details are as follows:

Test Name: Kappa and Lambda free light chain

Specimen: 2 ml of serum

Method: Nephelometry

Turn around Time: 1 day

References:

1. Dispenzieri A, et al. Immunoglobulin Free Light Chain Analysis and Clinical Monitoring in Plasma Cell Disorders. Blood Cancer J. 2016;6(7):e405.
2. Rajkumar SV. Multiple Myeloma: 2022 Update on Diagnosis, Risk-Stratification, and Management. Am J Hematol. 2022;97(8):1086-1107.

Food Intolerance Test (FOX)

The Food Intolerance Test (FOX) uses advanced Protein Microarray technology to detect IgG antibodies against various food antigens. By analyzing blood samples, it identifies food sensitivities linked to symptoms like bloating, fatigue, and headaches. The test provides clinicians with precise data for personalized dietary interventions, helps in managing the conditions such as IBS, IBD, autoimmune disorders, gastrointestinal issues, skin problems, and respiratory complications.

The test details are as follows:

Test Name: Food Intolerance Test

Specimen: 1ml of serum

Method: Protein Microarray

Turn around Time: 2 days

References:

1. <https://acaai.org/allergies/testing-diagnosis/food-allergy-testing-and-diagnosis>
2. Lavine E. Blood testing for sensitivity, allergy or intolerance to food. CMAJ. 2012 Apr 3;184(6):666-8. doi: 10.1503/cmaj.110026. Epub 2012 Mar 19. PMID: 22431905; PMCID: PMC3314037.

From Clinician's Desk-
ERCP in surgically altered
anatomy in post operative
patient of Whipple's surgery



Dr. Pankaj Shrimal
MD, DM Gastroenterology,
SR Kalla Memorial Hospital, Jaipur

Abstract:

A 56 yrs female is a known case of distal cholangiocarcinoma with history of whipple's surgery in year 2016. Now she came with history of jaundice and pruritus since 1 month. On evaluation, investigation suggestive of extra hepatic obstructive jaundice with high bilirubin and alkaline phosphatase. Her MRCP suggestive of hepato-jejunostomy stricture. Standard ERCP for biliary decompression was not feasible due to surgically altered anatomy. She had consulted multiple gastroenterologists for palliation of jaundice but medical treatment alone was not sufficient and standard ERCP was not feasible due to altered surgical anatomy. Single balloon Enteroscopy assisted ERCP was done. Single balloon enteroscope is a device for endoscopic diagnosis and management of small intestinal diseases. With this device, hepato-jejunostomy anastomotic site was reached. HJ anastomosis was found strictured with friable tissue suggestive of malignancy. Biopsy was taken and two plastic biliary stents were placed in right and left hepatic ducts. Her symptoms of pruritus improved and bilirubin decreased. Her biopsy came out positive for malignancy.

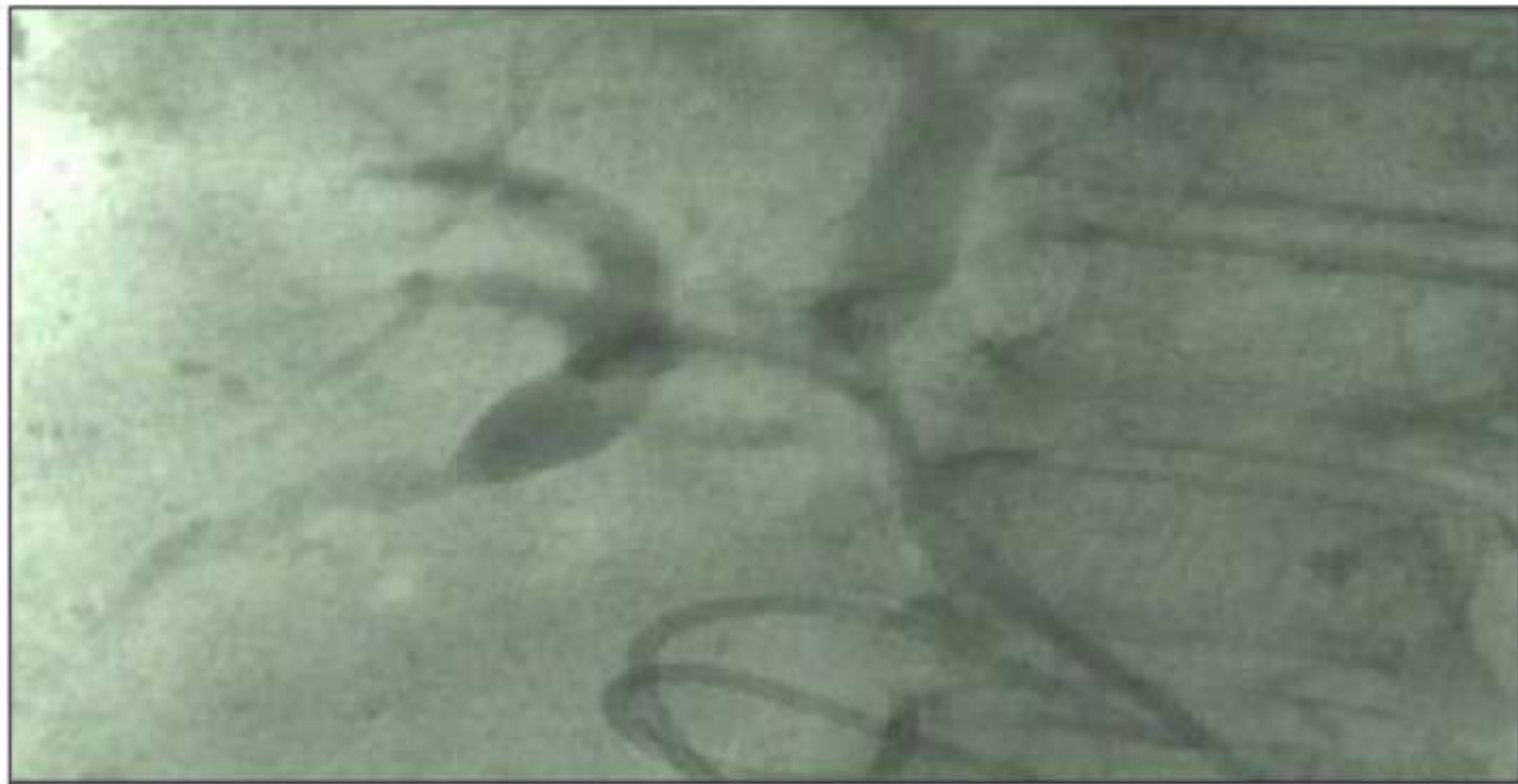


Fig 1. Fluoroscopy image showing two plastic stents in biliary system



Fig 2. Fluoroscopy image showing Enteroscopy and cholangiogram with one plastic stent



Fig 3. Fluoroscopy image showing Enteroscope positioning and cholangiogram



Fig 4 and 5. Endoscopic image of HJ Anastomotic structure

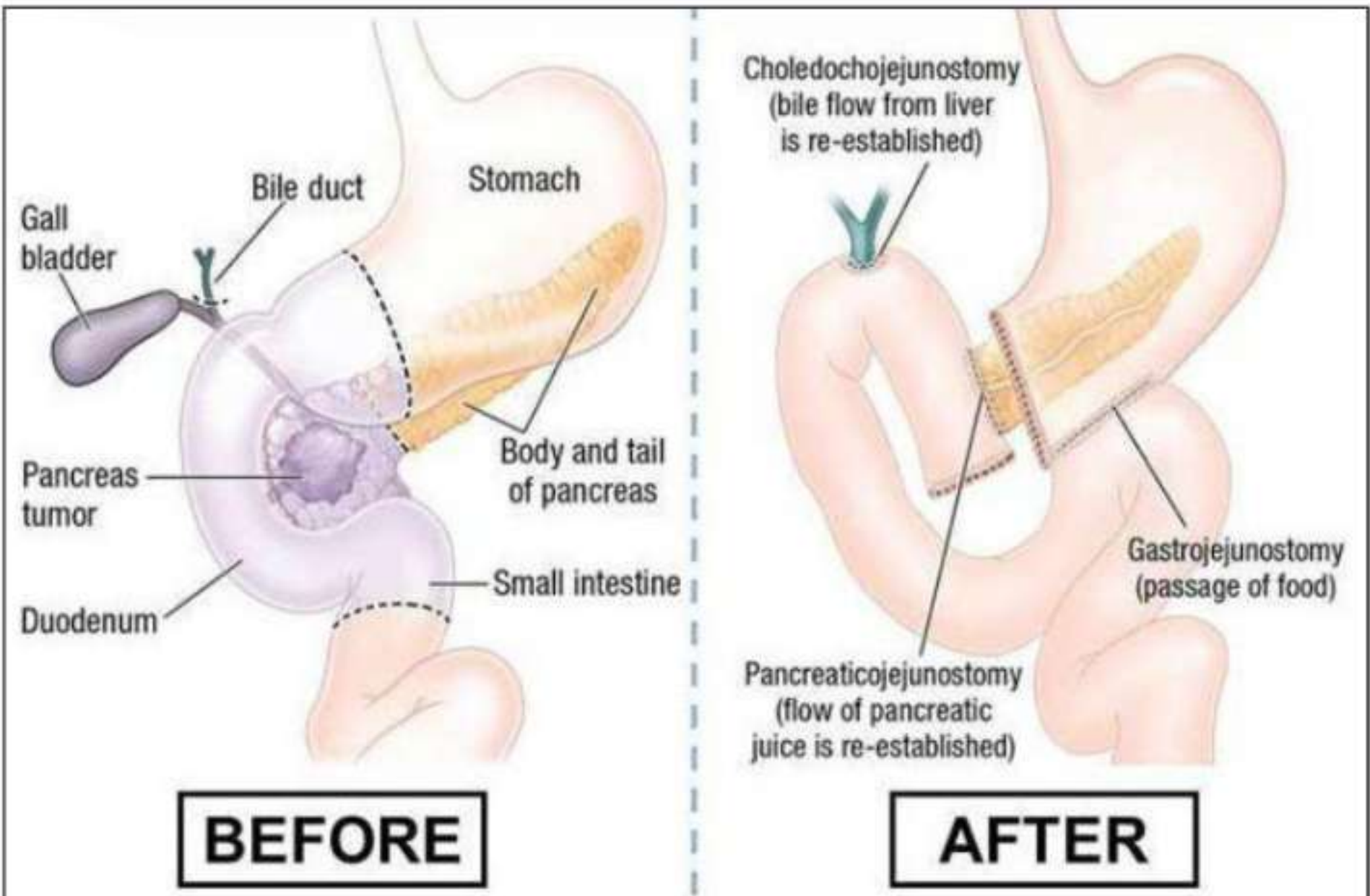


Fig 6. Graphic representation of normal anatomy and changes after surgery

Events Recap

Continuing Medical Education (CME) Sessions

Advances in Diagnostic Approaches for Infectious Diseases and Cancer: Dr. B. Lal Clinical Laboratory organized an **CME in Lalsot on August 19th, 2025**, bringing together leading medical experts to discuss advancements in diagnostics and patient care.

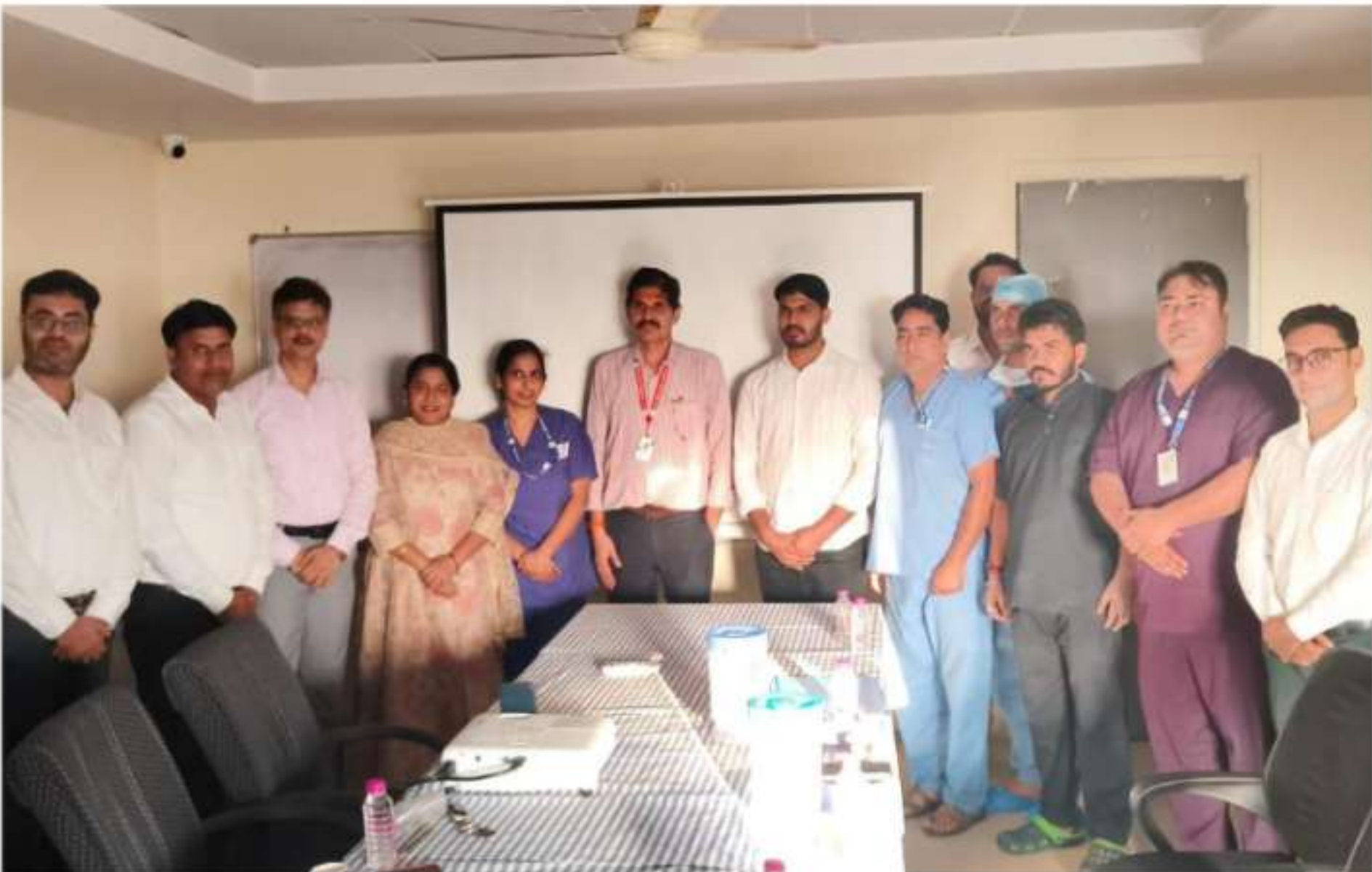
The event began with a welcome address by **Dr. Monika Shashank** and was graced by Chief Guest **Dr. Bhagirath Meena**. The key sessions included **Dr. Anjali Sharma** on cancer diagnostics, **Dr. Sandeep K. Shrivastava** on Molecular Genomics, **Dr. Virendra Singh Meena** on Anaesthesia, **Dr. Ekta Meena** on gynaecological infections, and **Dr. Shivani Swami** on a pulmonology case study.

With active participation, the CME reaffirmed DBCL's commitment to excellence, stressing the role of early detection and precision diagnostics in improving patient outcomes.



Round Table Meeting (RTM) Sessions

RTM Chomu - Diagnostics at the Core of Clinical Decision-Making: Dr. B. Lal Clinical Laboratory organised an **RTM in Chomu on September 20th, 2025**, bringing together top medical experts. The session was opened by **Dr. Debaashish Biswas**, followed by insights from **Dr. Monika Shashank** on advanced diagnostic tools and **Dr. Sandeep K. Shrivastava** on Molecular Genomics. The event was graced by Chief Guest **Dr. Amar Sharma**, whose presence added immense value. With active participation, the RTM highlighted the role of early detection and precision diagnostics in enhancing patient care, reinforcing DBCL's commitment to medical excellence.



RTM Ahmedabad - Synergy: Tissue talks, Scalpel walks: Dr. B. Lal Clinical Laboratory organised an **RTM in Ahmedabad on July 17th, 2025**, bringing together top medical experts to discuss advancements in diagnostics and patient care.

The session was opened with a **welcome by Dr. Monika Shashank**, followed by insights from **Dr. Anjali Sharma** on cancer diagnostics. The event was graced by the Chief Guest **Dr. Jagdish Patel** and the Guest of Honour was **Dr. Urang Patel**.

With active participation, the CME reinforced DBCL's commitment to excellence, highlighting the role of early detection and precision diagnostics in patient care.



Live Webinar

Zoom Webinar- Early Warning Signs In the Blood: CBC Signatures of AML Diagnosis: We have recently organized an online webinar on Zoom with **Dr. Prakash Singh Shekhawat**. The session was moderated by **Dr. Monika Shashank**. The session stressed upon the changes in the CBC to look for the earlier diagnosis of AML. The major aim was to make the audience understand **the importance of CBC as an initial indication for the AML diagnosis**.



ONLINE WEBINAR

EARLY WARNING SIGNS IN THE BLOOD:

CBC Signatures of AML Diagnosis

Join via



 5:15 PM Onwards

 Saturday 27th Sept, 2025



MODERATOR

Dr. Monika Shashank

Vice President, Operations, Dr. B. Lal Clinical Laboratory



SPEAKER

Dr. Prakash Singh Shekhawat

Consultant, Hemato Oncology and Bone Marrow Transplant, BMCHRC

Social Media Video Snippets

World Brain Day 2025: Simple Habits for a Healthy Mind: On the occasion of World Brain day on 22nd July, Dr. Sumit Kamble explained about some simple daily habits to keep our brain healthy, Dr. Neetu Ramrakhiani spoke about early symptoms of the diseases of brain, Dr. Vikas Gupta spoke about the warning signs of brain disease and how to improve concentration.



World Hepatitis Day 2025: Awareness, Prevention & Early Diagnosis: On World Hepatitis Day, 28th July, experts shared key insights: Dr. Sandeep K. Shrivastava spoke on types of hepatitis and early diagnosis, Dr. Pankaj Shrimal explained their differences, Dr. Vimal Gupta discussed symptoms, Dr. Rajiv Jain highlighted child vaccination, and Dr. Amit Sanghi warned how chronic hepatitis can lead to cirrhosis or liver cancer.



National Nutrition Week 2025: Myths, Facts & the Power of Right Nutrition: On the occasion of National Nutrition Week from 1st September, our Diet and Wellness team highlighted the importance of proper nutrition across all ages, daily habits affecting health, rising malnutrition in India, and common nutrition myths.

Nutrition Myths Busted in 30 Seconds!



Nutrition for All From Kids to Grandparents



In-Clinic Awareness Poster

Patient Information Poster– Spreading Awareness for a Healthier Tomorrow: Dr. B. Lal Clinical Laboratory took a significant step by launching an awareness initiative across Jaipur and regional zones like Alwar, Ajmer, Bharatpur, Bikaner, Bhilwara, Sikar, Kotputli, Kota, etc. in form of patient information poster. These informative posters were strategically placed in the waiting areas of Neurologists, Gynecologist and Pediatricians, emphasizing the importance of PCOS- causes, symptoms, and treatment Importance of Child Nutrition and why early detection is crucial for the patient. This initiative aimed to educate patients and caregivers, reinforcing the laboratory’s commitment to community health and timely diagnostic intervention.



In Clinic Camp

Expanding Healthcare Access: Successful In-Clinic Camps in Jaipur: Over the past three months, Dr B Lal Clinical Laboratory has hosted In-Clinic Camps in Jaipur with specialists in Orthopaedics, Gynaecology, and Pulmonology, including Dr. Shubham, Dr. Abhilasha, and Dr. Shubhranshu. These camps offered expert consultations, early diagnostics, and personalised health insights, enhancing patient awareness and bridging the gap between specialised healthcare and community well-being.



RAJMICROCON pre-conference workshop

Empowering Knowledge: Workshop on ANA & Autoimmune Diseases: Dr. B. Lal Clinical Laboratory successfully conducted the Pre-Conference Workshop on **“Basics of ANA and Autoimmune Disease: Navigating the Future of Diagnostics”** in coordination with **RAJMICROCON 2025**. The workshop saw the enthusiastic participation of **40+ delegates**, who gained valuable insights through **interactive sessions and live demonstrations**. This achievement marks another milestone in advancing knowledge and innovation in the field of diagnostics and autoimmunity.



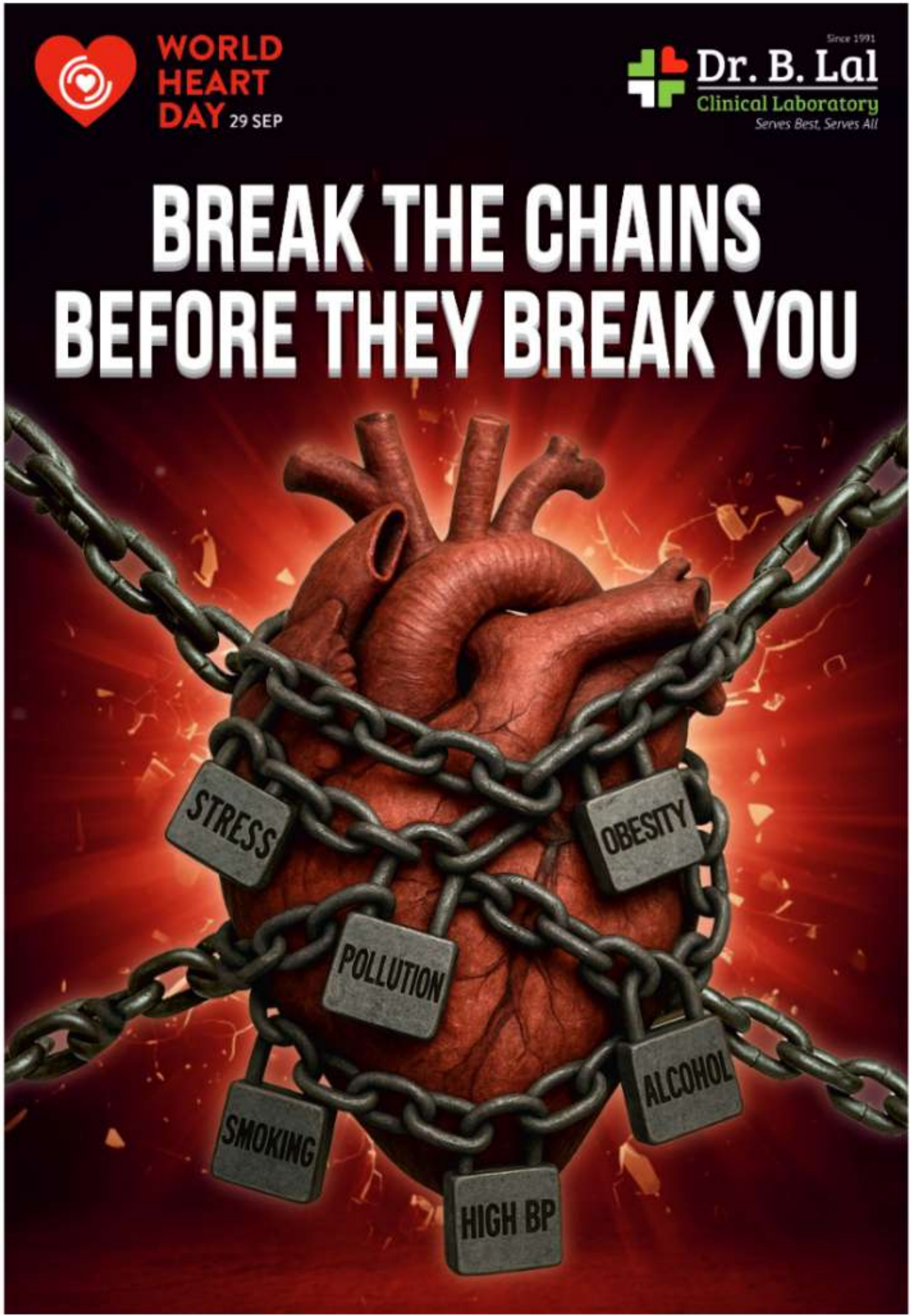
Celebrating Doctors’ Dedication: Doctor’s Day 2025 Tribute

Honoring the Heroes of Healthcare: A Heartfelt Doctor’s Day Celebration: On the occasion of **Doctor’s Day 2025**, Dr. B. Lal Clinical Laboratory paid tribute to the invaluable contributions of doctors in safeguarding community health. As a token of gratitude, **each doctor was presented with a memento and a personalized card** to honor their dedication and service. To make the celebration more special, videos were **created capturing doctor’s experiences and reflections, showcasing their journey and commitment to patient care**. The event was a heartfelt gesture to express appreciation and our deep respect for the medical fraternity.



World Heart Day 2025: “Don’t Miss the Beat” Campaign for Preventive Health

Screen Today, Smile Tomorrow: Heart Health Awareness 2025: On the occasion of World Heart Day 2025, Dr. B. Lal Clinical Laboratory launched the campaign **“Don’t Miss the Beat”** to raise awareness about heart health. As part of this initiative, special Suraksha Health Packages with additional discounts were introduced, covering vital screenings for **cardiac, diabetes, kidney, liver, thyroid, bone, and immunity health**. The campaign highlighted the importance of preventive checkups and encouraged people to take charge of their well-being. With the guiding mantra **“Take charge today – your actions shape tomorrow”**, the initiative emphasized that timely health screenings can safeguard a healthy heart and a healthier future.



This World Heart Day,
Don't Miss The Beat



ARE YOU AT RISK FOR
HEART DISEASE?



Proud Achievements

Accreditation and Certification!

Dr. B. Lal Clinical Laboratory: Two Years of Excellence in Diagnostics: We are proud to celebrate yet another milestone in our journey of excellence. At the **ET Rajasthan Business Summit & Awards**, Dr. B. Lal Clinical Laboratory was honored as the **Diagnostic Leader of the Year**, following last year's recognition as **Diagnostic Centre of the Year** - making it two consecutive years of transformational achievements. This recognition reflects the **trust placed in us by over 1 million patients every year and the dedication of our team in upholding the values of Truth, Trust, and Care**. As we continue to lead in diagnostics, we remain committed to innovation, compassion, and delivering reliable healthcare solutions that make a meaningful difference in people's lives.



Hospital Lab Management (HLM)

Expanding Horizons of Care at Navjeevan Hospital, Lalsot: Dr. B. Lal Clinical Laboratory has proudly expanded its reach with the inauguration of a **24x7 Central Lab and Collection Center at Navjeevan Hospital**. The facility is equipped with advanced technology and a team of **skilled professionals, ensuring patients receive timely, accurate, and reliable results**. With round-the-clock access and a strong focus on supporting clinical decisions, this expansion marks a significant step in making quality healthcare more accessible - every hour, every day.



Expanding Diagnostic Excellence at Babylon Hospital, Jaipur: Dr. B. Lal Clinical Laboratory has expanded its trusted services to **Babylon Hospital, Jaipur, with the inauguration of a state-of-the-art 24x7 Central Lab and Collection Center**. This advanced facility brings together cutting-edge diagnostic technology and the expertise of highly skilled healthcare professionals to deliver **accurate, reliable, and timely test results**. With round-the-clock services and an unwavering focus on precision, **the lab ensures that patients and doctors receive seamless diagnostic support - without delays**, whenever it matters most.



Awards and Recognition



Proudly Recognized as

RAJASTHAN'S MOST TRUSTED LABORATORY

by the Honorable Deputy CM of Raj., Mr. Premchand Bairwa



Awarded as

DIAGNOSTIC LEADER OF THE YEAR

by Economic Times Rajasthan Business Award



Big FM recognized

BEST DIAGNOSTIC LAB OF THE YEAR

by Bollywood actress Amisha Patel



Awarded as

EXCELLENCE IN PATHOLOGY SERVICES

by First India News



Recognized as

Top 20 India's Best Workplaces in Pharmaceuticals, Healthcare, and Biotech 2024



Recognized as

Ranked #68 Across India, Mid-Size Workplaces, Great Place To Work®



Received

GREAT PLACE TO WORK certification

3rd Time in a Row!



Awarded as

EMERGING LEADER IN DIAGNOSTIC

by Voice of Healthcare



1
State-of-the-Art
Central Laboratory



8
NABL
Accredited Labs



10 Lakh+
Patients
Every Year



30+
Regional &
Point of Care Lab



34
Years
A legacy of
Truth-Trust-Care



30 Lakh+
Lakh Test
Every Year



150+
Collection
Centers



600+
Team of Qualified
Healthcare
Professionals



1500+
Wide Range
of Test Menu



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