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Dr. Lal PathLabs pioneers AI integration in cancer diagnosis in India

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Accurate identification of cancer spread to lymph nodes is vital in determining the stage and treatment path for patients

In a pioneering move set to transform cancer diagnostics in India, Dr. Lal PathLabs (DLPL) has become the first laboratory in the country to adopt a deep learning-based artificial intelligence (AI) module to detect lymph node metastasis, including micrometastasis, in cancer cases.

This cutting-edge technology, validated in collaboration with Qritive, was showcased at United States and Canadian Academy of Pathology (USCAP) 2025, one of the world's leading pathology conferences.

Detecting micrometastases—tiny clusters of cancer cells in lymph nodes—usually takes a lot of time and special tests. The AI tool QiAI Lymph Node Dx changes that by using deep learning to quickly and accurately spot cancer cells on digital slides. Adding this technology to regular medical practice makes diagnosing cancer faster and more reliable.

The AI system was tested on digital slides from breast, colon, stomach, and esophageal cancer cases. It accurately detected single-cell and micrometastases that had been missed during manual reviews. These results were later validated through immunohistochemistry (IHC), confirming the system's reliability.

Commenting on the development, Bruno Occhipinti, CEO, Qritive Pte. Ltd. said: "We previously got the opportunity to collaborate with the team at Dr Lal PathLabs on a study, which resulted in the abstract presented at USCAP'25 in Boston. Following extensive testing and workflow validation, we are now excited to go live and enable the transformative impact of our AI-powered solution on critical diagnoses. This has the potential to unlock massive efficiency and accuracy gains in large volume settings, further enhancing Lal PathLabs' excellence in its operations."

As cancer cases continue to rise, the integration of AI-powered diagnostic tools like QiAI Lymph Node Dx is expected to play a key role in transforming the accuracy and efficiency of cancer care in India.