Redefining MRI:
From Image to Insight

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Abdomen 2

SY24-2

MRI Assessment of Lymph Node Metastasis in Rectal Cancer: Beyond Size Criteria and Guiding Treatment Decisions

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Accurately staging lymph node (LN) metastasis is essential for rectal cancer management. Conventionally, clinical evaluation has relied on size-based measurements and morphological features, such as border irregularity and signal heterogeneity. While various research initiatives—including diffusion-weighted imaging (DWI), radiomics, and PET/CT—have been explored to improve diagnostic precision, these methods have not yet achieved the accuracy required to replace traditional approaches. Consequently, conventional criteria remain the primary tools in clinical practice due to the lack of established superior alternatives.

This lecture discusses the evolution of LN evaluation, focusing on the balance between diagnostic accuracy and the practical need for clinical consistency. In a multidisciplinary team environment, consistent application of criteria is necessary to minimize therapeutic uncertainty and facilitate effective communication.

I will systematically review current LN assessment standards established by guidelines, such as those from ESGAR and SAR. The presentation will differentiate between non-lateral pelvic regional LNs and lateral pelvic LNs, as each group requires specific assessment strategies that influence treatment decisions, including surgical planning and the use of neoadjuvant therapy.

In conclusion, the presentation emphasizes that ongoing efforts to improve imaging accuracy should be complemented by initiatives to enhance inter-observer agreement through standardized guidelines. Such standardization provides a stable framework for clinical decision-making.

Keywords: *Rectal MRI, LN metastasis, Accuracy, Consistency*