

## SUMMARY OF SPEAKERS' PRESENTATIONS

## Rectal cancer: Is MR sufficient for staging? Any advantage with EUS?

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Accurate locoregional staging is crucial in rectal cancer for deciding patient management. The administration of neoadjuvant therapy and decision for surgery depends on TN stage of the disease. Disease free survival and prognosis is determined by also stage of the disease (<sup>1</sup>).

Endoscopic ultrasound (EUS) and magnetic resonance imaging (MRI) are used in the pre therapeutic workup of rectal cancer. Endoscopic ultrasound (EUS) was initial examination for staging. However because of the lack of facilities in many centres and also the progress in imaging techniques shifted the initial preference of EUS to other methods in rectal cancer staging. EUS is better than CT or MRI for local staging of the disease. However it is operator dependent and invasive techniques. Device is usually could not pass strictures due to tumour. MRI compared the EUS is more easily tolerated, non-invasive and widely available. MRI also does staging in stenotic tumours and it can assess the resection margin. It also detects T stage better than EUS since it shows extramural spread better(<sup>2</sup>). In advanced cases with distant metastases, computed tomography (CT) is the primary approach used to evaluate the disease

EUS is preferred method in early rectal cancer which is eligible for local excision. Recent prospective study compared EUS versus MRI in reliability for rectal cancer staging. Groups were compared for staging accuracy of depth of penetration (T), lymph nodes positive (N) and combined T and N (TN) result. EUS had higher sensitivity in T1 ( $p=0.044 < 0.05$ ) and specificity in T2 ( $p = 0.039 < 0.05$ ) than MRI. MRI had higher sensitivity in N staging ( $p = 0.046 < 0.05$ ) In another retrospective comparison trial MRI was not able detect any of T 1 tumours. (<sup>3,4</sup>)

Endorectal ultrasound is useful for tumour (T) staging; hence EUS is a useful imaging modality for early rectal cancer. Magnetic resonance imaging (MRI) is useful for assessing the mesorectum and the mesorectal fascia which has useful prognostic significance and for early identification of local recurrence. Most of the common imaging techniques

are suboptimal for imaging following chemoradiation as they struggle to differentiate fibrotic changes and tumor. In this situation, EUS and MRI may provide complementary information to decide further treatment. After neoadjuvant chemoradiation, EUS and MRI correctly classified 46% (18/39) and 44% (17/39) of patients, respectively, in line with their histological T stage ( $P > 0.05$ ). EUS was better than MRI for patients with T0-T2 (44% vs 33%,  $P > 0.05$ ) and N0 disease (87% vs 52%,  $P = 0.013$ ). However, MRI was more accurate than EUS in T and N staging for patients with more advanced disease after radiotherapy, (<sup>5</sup>).

In rectum cancer staging both EUS and MRI have some drawbacks and advantages. EUS is preferred method in early rectal cancer while MRI helps more accurate staging in advanced cases.

## References

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