Plane of mesorectal excision (Core)

The quality of surgical technique has been shown by prospective randomised controlled trials to predict outcome following surgical treatment for rectal cancer. Total mesorectal excision (TME) surgery improves local recurrence rates and the corresponding survival by up to 20%.[1,2] Macroscopic evaluation of the completeness of the mesorectum, by objective assessment of the surgical plane of excision, predicts margin involvement, local recurrence and survival.[3,4] Excision in the mesorectal plane (complete TME) has the best outcome while excision extending onto the muscularis propria (incomplete TME) has the worst.

Assessment requires examination of the intact specimen and overall assessment is based on the worst area, as described below:

Mesorectal fascia (complete)

- Intact bulky mesorectum with a smooth surface
- Only minor irregularities of the mesorectal surface
- No surface defects greater than 5 millimetres (mm) in depth
- No coning towards the distal margin of the specimen

Intramesorectal (near complete)

- Moderate bulk to the mesorectum
- Irregularity of the mesorectal surface with defects greater than 5 mm, but none extending to the muscularis propria
- Moderate coning may be evident distally
- No areas of visibility of the muscularis propria except at the insertion site of the levator ani muscles

Muscularis propria (incomplete)

- Little bulk to the mesorectum
- Defects in the mesorectum down to the muscularis propria
- After transverse sectioning, the circumferential margin appears very irregular and is formed by muscularis propria in areas.

References

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