COLORECTAL CANCER LIST SERV
SCENARIO 2:
STAGING AND MANAGEMENT OF RECTAL CANCER

LEARNING OBJECTIVES
1. Understand the significance of positive circumferential margins on local recurrence.
2. Understand the role of imaging (transanal ultrasound (TRUS) vs Magnetic Resonance Imaging (MRI)) in the local assessment of rectal cancer.
4. Understand the need for Quirke method.

CASE PRESENTATION
61 year old male
- Two month history of bright red blood per rectum
- No other symptoms related to the gastrointestinal (GI) tract
- Past history unremarkable
- On digital examination:
  - In the posterior midline there is a firm and possibly fixed rectal cancer
  - Suggestion that this is at least a T3 cancer
  - Located 1 cm above the top of the sphincter muscle
  - Tone, squeeze, and sensation are all normal

INVESTIGATIONS

Investigations:
Biopsy - Adenocarcinoma, moderately differentiated
CT scan - Nodular wall thickening of the rectum with extension into the perirectal fat and abnormal regional lymph nodes
- No metastatic disease
MRI - Full thickness mass involving the rectal wall, starting 1.5 cm from the anorectal junction and extending at least 8 cm in length
  - Clear invasion into the mesorectum and invasion of the mesorectal fascia at the right posterior side
  - Pelvic side walls are clear of tumour

QUESTIONS FOR DISCUSSION
1. What is the optimal imaging for patients with rectal cancer? Is it feasible to get these tests done in a timely manner at your hospital?
2. What are the key points that should be included in the MRI report?
3. Would this patient be presented at a multidisciplinary cancer conference (MCC) in your region/hospital?
4. Should this patient be referred for neoadjuvant therapy?

GUIDELINE INFORMATION

“Optimization of Surgical and Pathological Quality Performance in Radical Surgery for Colon and Rectal Cancer: Margins and Lymph Nodes”
http://www.cancercare.on.ca/pdf/pebc17-4s.pdf
For key evidence, see pages 6-8 of the Evidentiary Base (Section 2) of the guideline.
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FOLLOW-UP

MANAGEMENT
- Long course of chemoradiation given
- Abdominoperineal resection performed 6 weeks later

PATHOLOGY
- T3N0 (0/4 nodes positive)
- Proximal and distal margins free of tumour
- Distance of tumour to circumferential radial margin (3 mm)

QUESTIONS FOR DISCUSSION
1. Is your center producing synoptic pathology reports to report on colorectal cancers?
2. What is the significance of a circumferential margin (CRM) of 3 mm? Does that indicate a negative CRM?
3. Does your center use the Quirke method for processing rectal cancers and evaluating CRM?
4. What is the significance of the fact that only 4 lymph nodes were found?

KEY LEARNING POINTS
The case highlights the importance of thoughtful interaction between surgeon, radiation oncologist and radiologist. Furthermore, the case highlights the imperative of having a systematic, accurate method of assessing the specimen following surgery as this is related to prognosis of the particular patient and quality improvement in general. This requires systematic, feedback between surgeon and pathologist. In summary, specific issues discussed included:

A. Pre-op assessment
1. MRI is preferred for assessing the mesorectal fascia and to evaluate lymph nodes.
2. TRUS best at identifying early cancers (eg. T1 and T2).
3. Both MRI and TRUS are sometimes useful, especially in sorting out lower 1/3 lesions, especially in the anterior location.
4. Access to reliable TRUS is especially a problem in the province.
5. MRI for rectal cancer is demanding and also user dependent.
6. Decisions regarding neoadjuvant chemoradiotherapy are complex. One commonly favoured approach is to refer for consideration of chemoradiation for all T3/4 and all threatened CRM. Nonetheless, a selective approach to some T3N0 is valid. MCCs are a great advance in this aspect of planning care and optimizing quality improvement in this area.
7. Standardizing reporting for MRI and development of a synoptic radiology report would be of value in promoting consistent communication on rectal cancer cases.

B. Post-op assessment
1. Not all centres use the Quirke method, nor do they grade the quality of total mesorectal excision. However, there seems to be a striking amount of uptake of this approach in all corners of the province.
2. Patients who received preoperative adjuvant treatment should be staged with "y" prefix.
3. Lymph node assessment in radiated rectums is challenging and the '12' target may not be attainable in many such cases.
4. The use of a lymph node highlighting solution (such as GEWF) helps to reveal previously unidentified nodes, and is used by some centres.