

TREATMENT OF LOCALLY ADVANCED RECTAL CANCER

Definition:

- A working definition of a locally advanced tumor is one that cannot be resected without leaving microscopic or gross residual disease at the local site because of tumor adherence or fixation to that site.
- Usually refers to T4 or large T3.
- Pre-op assessment tools EUS, MRI, and CT.

T0	No evidence of primary tumor
Tis	Carcinoma-in-situ, intraepithelial or invasion of lamina propria
T1	Tumor invades submucosa
T2	Tumor invades muscularis propria
T3	Tumor invades through muscularis propria
T4	Tumor invades other organs
N0	No regional lymph node metastasis
N1	Metastases in 1-3 regional LN
N2	Metastasis in 4 or more regional LN
M0	No distant metastasis
M1	Distant metastasis

Stage 0	Tis	N0	M0
Stage I	T1, T2	N0	M0
Stage IIA	T3	N0	M0
Stage IIB	T4	N0	M0
Stage IIIA	T1, T2	N1	M0
Stage IIIB	T3, T4	N1	M0
Stage IIIC	Any T	N2	M0
Stage IV	Any T	Any N	M1

Curative treatment options:

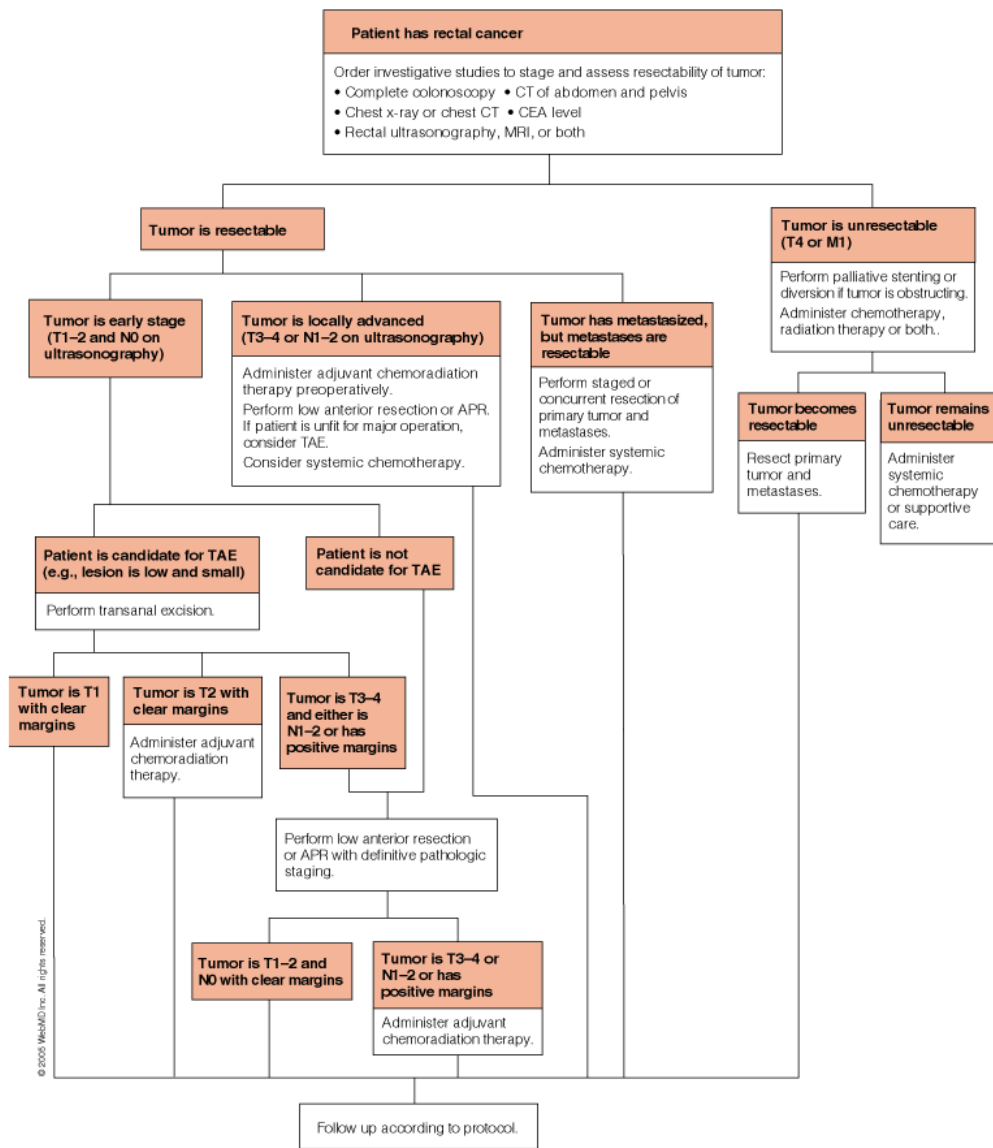
- Surgery alone – Pelvic exenteration – 5 years survival rates 40-60%. Mutilative, high (50%) peri-operative morbidity rate.
- Radiotherapy alone – 10% 5 year survival rate. High failure rate (i.e. disease progression).
- Surgery + post-operative radiotherapy – the addition of radiotherapy improves local control, disease free survival and overall survival rates after curative resection with microscopic residual tumor, but not in cases with gross residual tumor.
- Multimodal therapy = surgery + chemotherapy + radiotherapy – up to 30% pathologic complete response, 10% down-staging to T1-2.
 - Adjuvant vs. neoadjuvant: down-staging, sphincter preservation, tumor viability, radiation enteritis.
 - Continuous vs. bolus 5-FU - Survival benefit, increases rates of complete pathologic response.
 - Addition of leucovorin / cisplatin.
 - Sandwich protocol – full dose radiotherapy (50gy) + chemotherapy (bolus or continuous) – surgery – chemotherapy: better 5 years overall survival and disease free survival rates.
 - Intra-Operative electron beam RadioTherapy (IORT) – for adherent tumors, gross residual tumor.

Recommendation (up to date):

- Pre-operative full dose radiotherapy for 5.5 weeks with continuous infusion of 5-FU.
- Surgery 4-6 weeks after last chemo course (LAR-TME / APR / pelvic exenteration, depending on tumor extension).
- During surgery – look for liver metastasis, peritoneal spread. Resect as much as possible. In case of positive margin or residual tumor – consider IORT.
- Post-operative chemotherapy.

Palliative treatment options:

- Resection
- Laser ablation - several sessions, relief of obstruction, high risk of perforation
- Stent



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