Adherence and Reasons for Non-Adherence to a Tri-Modality Regimen in the Treatment of Esophageal Cancer

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Purpose / Objective(s)
- In locally-advanced esophageal cancer, providers’ doubts regarding eventual surgical candidacy can affect radiation prescriptions, with many deferring to definitive doses of 50.4 Gy or higher in the preoperative setting.
- We report the successful completion rate of tri-modality therapy (TMT) and reasons for non-adherence to TMT in patients treated at a large multi-disciplinary esophageal program.

Materials & Methods
- Locally-advanced esophageal cancer patients diagnosed between 2007 and 2016 identified from prospective institutional database
- Patients indicated for TMT (trimodality therapy) (documentation of planned TMT at the outset) divided into CRT/S+ (documentation of completed surgery) and CRT/S- (completion of CRT and no subsequent surgery) groups
- Detailed chart review provided reasons for non-adherence to TMT
- 283 Pts identified w/ planned TMT prior to CRT initiation: 221 (78.0%) CRT/S+; 62 (22.0%) CRT/S-

Results
- Majority of patients (78%) received TMT as planned.
- 283 patients identified with concurrent chemotherapy largely consisting of cisplatin/5FU (predominating pre-CROSS trial therapy) or carboplatin/paclitaxel (post-CROSS therapy).

Reasons for Surgery Non-Adherence
- Metastasis Disqualification
- Imaging Identified
- Expired Prior to Surgery
- Intraoperatively Identified
- Unresectable Intraoperatively
- Unknown Causes
- Failed to Advance for Unknown Reasons
- Medical Decompensation Disqualification
- Received < 50 Gy Dose
- Received > 50 Gy Dose
- Voluntarily Declined post CRT
- Other Details

Summary & Conclusions
- At our institution, a 78% rate of success in completing surgery among patients indicated for TMT highlights the benefits of upfront multi-disciplinary care.
- As over 25% of our CRT/S- patients declined esophagectomy voluntarily, thorough surgical counseling prior to CRT is essential to avoid undertreatment.
- For our CRT/S+ patients, pCR and R0 resection rates did not quantitatively improve over the published CROSS trial.
- In the absence of a demonstration of superiority of radiation doses greater than 41.4 Gy, the robust CROSS regimen should be the standard of care in managing esophageal TMT patients, especially if evaluated upfront in a multi-disciplinary setting.

Future Research & Study Limitations
- Study is limited by retrospective determination of surgery noncompliance or decline, but every effort was made in chart review and consultation with physicians to understand reasoning. Future prospective studies can confirm the benefit of counseling and initial treatment planning.