Hand sewn v/s stapled cervical esophagogastric anastomosis in esophageal carcinoma: A study of postoperative clinical outcomes

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Introduction & Aim: Esophageal carcinoma is a multifaceted and complex disease of rapidly rising incidence that exerts an increasing social and financial burden on global healthcare systems. Esophagogastrectomy is the standard treatment for esophageal carcinoma and end-stage benign esophageal disease; however, the techniques of esophagogastric anastomosis after esophagectomy are complex and associated with postoperative complications, such as anastomatic leakage and stricture.

Methods: All patients who underwent esophagectomy with cervical esophagogastric anastomosis at a single academic center from 2013 to 2018 were included in the study. Both early and late complications were analyzed.

Results: 60 patients underwent resection for carcinoma of the esophagus and gastroesophageal junction. Of these 45 patients had esophagectomy with cervical esophagogastric anastomosis. Hand sewn and 15 patients underwent a linear stapled anastomosis. Both groups were comparable with respect to preoperative characteristics. There was no difference in T and N stage of the disease. There was statistically significant difference in the mean anastomotic time (34.3 min in hand sewn group v/s 15.4 min in linear stapled group, p< 0.001), anastomotic leak (6 major leak and two minor leak in hand sewn group v/s 0 leaks in linear stapled), anastomotic stricture (8 in hand sewn group v/s 1 in linear stapled group). Similarly there was significant difference in the mean operative time, mean ICU stay, mean hospital stay, ICD removal time, time of ambulation of oral feeds and time of ambulation of patients in linear stapled anastomosis compared to hand sewn anastomosis.

Conclusion: LS anastomotic technique for esophagogastric anastomoses in esophagectomy for cancer indicates that the new technique lowers anastomotic leakage and stricture rates compared to traditionally used HS techniques. Furthermore, the application of the LS technique is usually easy and standardized such that the incidence of technical errors is minimized. Use of staplers decreased the mean anastomotic time. The incidence of anastomotic leakage and stricture decreased which indirectly reduced the mean ICU stay, hospital stay and early supplementation of feeding to the patient which decreased the overall morbidity to the patient. The use of stapler however has shown no decrease or increase blood loss and surgical time, but decreased the anastomatic, pulmonary complications and mortality. The linear-stapled esophagogastric anastomosis is a safe and effective anastomotic technique, which can decrease the rate of leak, postoperative dysphagia. In contrast, the HS method requires surgical expertise and might not be practical everywhere; therefore, we should preferentially use LS over the HS method.

Biography
Hemish Kania is working as surgical Oncology Fellow at Dr. B. Borooah Cancer Institute, India.

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