Fibrin sealant (Tissucol) for the fixation of hiatal mesh in the repair of

giant paraesophageal hernia: a case report.

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Abstract:

INTRODUCTION: The use of hiatal meshes for the repair of giant paraesophageal hernias (GPH) is

associated with a significantly decreased rate of recurrences compared with mesh free techniques.

Many surgeons refrain from mesh implantation at the gastroesophageal junction owing to reported

complications, such as mesh migration, strictures, and risks of tack or suture placement. This case

report presents the laparoscopic application of a titanium-coated mesh (TiSure, GfE, Germany)

designated for hiatal repair, with fibrin sealant fixation (Tissucol, Baxter, Austria) in a patient with

GPH.

METHODS: A patient (male, 59 y) presented at our outpatient department with a 3-year history of

epigastric pain and decreasing lung capacity. A GPH with an intrathoracic upside-down stomach

had already been radiologically diagnosed 3 years before admission. In elective laparoscopy, the

stomach was repositioned and the crura of the diaphragm were approximated with nonresorbable

sutures. The defect was reinforced with a preshaped titanium-coated mesh and fibrin sealant (2 mL)

applied with a 45 degree angled tip laparoscopic spraying device. No perforating fixation device was

used for mesh fixation itself. The patient was discharged on the seventeenth postoperative (postOP)

day. The clinical follow-up included the assessment of postOP pain with a visual analog score and a

confirmative computed tomography scan 6 months after surgery.

RESULTS: The patient has fully recovered, showing no recurrence or adverse effects 1 year

postOP.

DISCUSSION: Based on previous good results from own experimental trials, the mesh sealing approach in hiatal hernia repair was performed clinically, yielding an excellent result in this case. Multicenter trials to assess the full impact of FS mesh fixation in combination with macroporous hiatal meshes seem mandatory.