

# **Autologous fibrin sealant for treatment of persistent fistula after upper gastrointestinal resections and bariatric surgery.**

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## **Abstract:**

**Aims:** Anastomotic leak is a potentially life-threatening complication after upper gastrointestinal resections and bariatric surgery requiring long, cost-intensive and frequently failed treatment. This study has been undertaken to evaluate, whether endoscopic sealing with autologous fibrin glue is an effective treatment for persistent postoperative fistula. **Methods:** During the last three years 17 patients who developed non-healing upper gastrointestinal leaks after oncologic (n = 6), non-oncologic resections (n = 3), and bariatric surgical procedures (n = 8) were treated by endoscopic Vivostatdegree Platelet Rich Fibrin (PRFdegree) autologous fibrin sealing. Fibrin sealant was applied in patients without systemic or advanced local signs of infection with a sufficient external drainage of leakage site. Location was cervical (n = 1), intrathoracic (n = 4) and abdominal (n = 12). Previous leak treatment included surgery, external drainage or/and endoscopic stenting. Endoscopic sealing occurred in 6 patients with novel anastomotic insufficiency during the first week after manifestation of leakage and in 11 patients with persistent fistula after a median interval of 35 days (range 16-70). **Results:** Fourteen of seventeen patients had complete healing of the anastomotic leak or fistula after one (8 patients), two (3 patients), three (2 patients) or five (1 patient) sealing procedures. In seven from eleven patients with persistent fistula complete wound healing was achieved during a week after the first sealing, in 2 patients during three weeks. In six procedures sealing was completed by simultaneous implantation of a stent. In three patients treatment failed and the healing of the abdominal fistula was achieved by following insertion of a stent on the leakage site. **Conclusions:** Autologous fibrin sealing could be successfully used for

management of persistent upper gastrointestinal fistula and promotes healing.