Reinforcement of staple line using barbed suture and fibrin glue during sleeve gastrectomy.

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Abstract:

Introduction: Laparoscopic sleeve gastrectomy is the most popular bariatric procedure in our days with good results concerning EWL and resolution of comorbidities. However, management of the staple line is still a matter of controversy in the literature and in international meetings. Aim: We present our experience with staple line reinforcement during robotic sleeve gastrectomy. Material: Our center has a large robotic experience (1522 procedures) from a great spectrum of general surgery and bariatric indications including : 40 robotic sleeve gastrectomies, 2 robotic bypasses, 1 robotic bypass restoration after Roux-en-O reconstruction, 1 robotic gastric band placement and 12 removals. In all cases of sleeve gastrectomy, after mobilization of the stomach and division of short gastrics using robotic Vessel Sealer device, suture line reinforcement takes place using robotic needle drivers and a continuous barbed suture. In addition, fibrin glue is spread over the reinforced line as a second means of protection. A drain is routinely used for 3-5 days postoperatively. Results: 39 patients followed an uncomplicated course. One patient developed pulmonary embolism on postoperative day 1 and was transferred to ICU. All patients were assessed for leaks on postoperative day 2 by gastrographin swallow. No leaks were noted in any of the patients. Nasogastric tube was removed on day 2 and drain removed on postoperative day 3-5. Conclusions: Reinforcing the staple line during sleeve gastrectomy by suturing and glue is strongly recommended by the authors. Robotics may facilitate sleeve gastrectomy, especially during reinforcement by enabling better intracorporeal suturing.