Products	Padlock Clip® defect closure system
Procedural Area	Hemostasis
Article	Natural orifice transluminal endoscopic surgery gastrotomy closure in porcine explants with the Padlock-G clip using the Lock-It system
Publication	Endoscopy 2010; 42(4): 306-310
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Purpose	This study aimed to determine whether a gastrotomy suitable for a NOTES procedure can be closed safely and effectively from within the stomach using a novel endoscopically placed device, the Padlock Clip® defect closure system with the Lock-It delivery system.

Key Points	• This study was conducted with eight porcine models.
	• The series of eight consecutive porcine gastric explants gastrotomy was performed in an ex vivo animal laboratory.
	
	<u>Burst pressure testing</u>
	• T-tags were placed on either side of the gastrotomy, and, with the T-tags pulled into an endoscopic cap, and then the Padlock Clip® defect closure system was deployed.
	• Gastric transmural pressure gradients at bursting of these closures were measured during insufflation of the explanted stomachs with a high-pressure insufflator.
	  ○ The mean burst pressure of the gastrotomy closures was 68.0 mm Hg (range: 45 - 107 mm Hg).
	  ○ All of the stomachs ultimately ruptured at the closure sites, with the exception of the stomach that ruptured at the highest value (107 mm Hg), which ruptured at a site approximately 5 cm away from the closure site.
	• All closures were accomplished in 30 minutes or less.

Conclusions	The Padlock Clip® defect closure system is an easy-to-use system which resulted in successful gastrotomy closure both in explanted porcine stomachs and in an in vivo model. Data for gastric transmural pressure gradients at bursting is acceptable and comparable to other published methods.
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