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Case Report

Sigmoid perforation post laser ablation of fistula in ano

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ABSTRACT

Laser ablation of fistula tract is a safe, effective, sphincter-preserving therapy that can be successfully performed by surgeons. Various studies and papers have been published advocating the use of lasers. However clinical experience and technical expertise is necessary for the use of lasers. Here we present a case of a 45 year old male presenting with acute abdomen following laser ablation of fistula in ano. The patients X-Ray abdomen showed free gas under the diaphragm and was explored. The exploration revealed a pyoperitoneum and a sigmoid perforation for which closure of perforation and a diverting colostomy was done. The patient was further operated for fistula excision and Seton suturing and is planned for colostomy closure.

Keywords: Laser ablation, Perforation, Sigmoid perforation, Gas under diaphragm

INTRODUCTION

The main reason for surgical failure is a persistent fistula tract or remnants of fistula epithelium which were not excised, it was postulated that the benefit of this newly designed radial-emitting laser probe (in 2011 by Wilhelm where he used for fistula) was to eliminate fistula epithelium or any granulation tissue in a circular manner and then, to obliterate the fistula tract by a shrinkage effect. Simple diathermy cannot elicit the shrinkage effect on tissues and it's more difficult to regulate its potential thermal damage on the sphincter muscles. But it was not taken into consideration that the laser would lead to perforation.

CASE REPORT

A 45 year male came to the emergency room with complaints of pain in the lower abdomen since 2 weeks which suddenly increased since 6 hours. The patient had a history of laser ablation of a fistula in ano at a private hospital before 2 weeks and had complaint of pain in abdomen and painful defecation since then. The patient was taking symptomatic treatment for the same. The patient had no history of fever or vomiting. The patient was a known alcoholic. He was not a known diabetic or hypertensive. He had no past medical illnesses. On examination the patient was moderately built and nourished. Patient was tachycardic with blood pressure of 100/70 mm of hg. The patient had no pallor, icterus, cyanosis, clubbing or lymph edema. There was generalized tenderness all over the lower abdomen more in the right iliac fossa. There was no guarding or rigidity. Per rectal examination showed fistulectomy site with seropurulent discharge from the opening.

The X-Ray abdomen showed presence of free gas under the diaphragm (Figure 1&2). Ultrasonography was suggestive of fat stranding in the RIF with hepatomegaly and fatty liver. The patient was taken up for exploratory laparotomy. Intra operatively there was pyoperitoneum with thick pus flakes in the pelvis and around 200cc collection. The collection was drained. There was a single sigmoid perforation 1x1 cm size (Figure 3). The

perforation was sutured and a right sided diversion colostomy was done. Post op patient was taken up for fistulectomy with Seton suturing after a month. Patient is posted for colostomy closure once fistulectomy wound heals.

Figure 1: Gas under Diaphragm.

Figure 2: Free gas under diaphragm.

Figure 3: Sigmoid perforation seen intraop.

DISCUSSION

Laser ablation of fistula tract is a safe, effective, sphincter-preserving therapy that can be successfully performed by surgeons.[1] The ideal surgical treatment for anal fistula should eradicate septic focus and improve healing of the tract. Preserving the anal sphincters and continence mechanism is of utmost importance for the well being and unhampered activity of the patient. Superficial fistula can simply be layed open and the tissue between fistula and anoderm completely transected. The success rates for transaction and lay open procedure is almost 100%.[2] The incontinence rates after laying open of the transphincteric and distal fistula is under 10%.[3] However, the risk of potential damage to the anal sphincters and subsequent poor functional outcome remains in a large proportion of patients with high fistulae when the tract crosses more than 30%-50% of the external sphincter, and with recurrent or complex fistulae with multiple extensions or separate tracts. Women with anterior fistula or previous obstetric injury as well as patients with pre-existing incontinence or specific risks such as previous local irradiation or co-existing Crohn' s disease[4,5] are also at significant risk of incontinence and poor outcome.

For the management of high complex fistulas various techniques like endorectal advancement flap (ERAF), Seton suturing, fibrin glue, anal fistula plug, Ligation of the intersphincteric fistula tract (LIFT), expanded adipose-derived stem-cells (ASCs), video-assisted anal fistula treatment (VAAFT) and Radialemitting laser probe (FiLaCTM) have been used. Lasers in the treatment of anal fistula is a relatively new concept and an unexplored area requiring adequate technical knowhow and clinical expertise. The use of laser in the treatment of anal fistula was initially described in 2011 in a pilot study by Wilhelm.[6] This novel sphincter-saving technique uses an emitting laser probe [Fistula laser closure (FiLaC™), Biolitec, Germany], which destroys the fistula epithelium and simultaneously obliterates the remaining fistula tract.

CONCLUSION

Currently there is variety of procedures that can be used to treat fistulae, which testifies to the variable complexity of anal fistula and its unpredictable and non-reproducible results, the optimal procedure is the one tailored to the individual fistula. Laser ablation will still be done for fistulas. But once should be more careful while using laser as it can lead to sigmoid perforation. Lasers beneficial effect should not be nullified by perforation.

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