Ligation of Intersphincteric Fistula Tract with Bioprosthetic Mesh Offers a Promising Relief for Patients Suffering from Anal Fistula: A review of LIFT outcomes data

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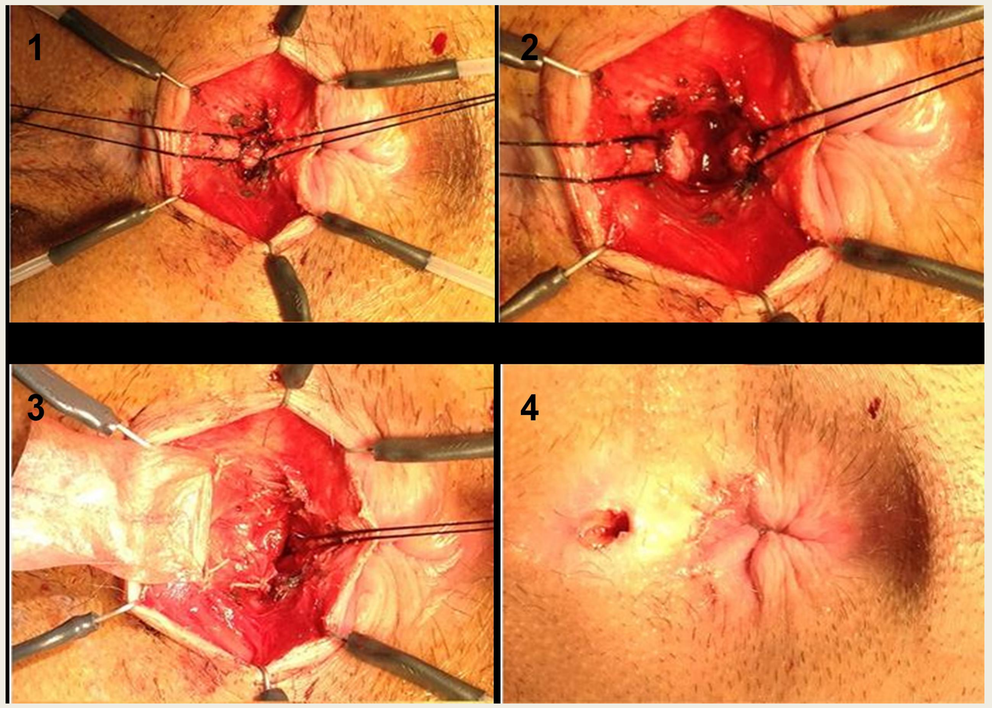
❖Introduction:

Fistula in ano presents a difficult challenge for definitive surgical management. Ligation of intersphincteric fistula tract (LIFT) has been shown to offer an option for surgical cure of this disease. It additionally can be conducted as a sphincter sparing tehnique. We have chosen to perform the "BIO-LIFT" procedure using the addition of an interposition biophrosthetic mesh to the repair to improve outcomes.

❖Methods:

We reviewed a prospectively maintained database that aims to evaluate the effectiveness of the LIFT procedure with the addition of biologic mesh.

This database included patients undergoing LIFT at UTMCK between 2012 and 2017 with two colorectal surgeons. All patients in this study had a trans-sphincteric fistula. Exclusion criteria included history of Crohn's disease, colovaginal fistulas, and multiple branching anal fistulas. All patients underwent a two-step operation beginning with identification of the fistula and non-cutting seton placement. The second step was the LIFT procedure with interposition of submucosal mesh. Cook Biodesign 4-layer porcine graft was utilized, costing $49.00 per piece of mesh. Post-operatively, patients were discharged with clinic follow up in 2-3 weeks, followed by a 3-month phone call.



❖Technical steps:

1. Incise along the intersphincteric groove to isolate the fistula tract.
2. Ligation of both internal and external tracts with 2-0 Vicryl (UR-6) incorporating muscle as needed and confirm ligation with probe and/or peroxide.
3. Placement biologic mesh into the intersphincteric plane, secured with 3-0 Vicryl.
4. Curettage debridement of the external opening and standard closure of surgical wound.

❖Results and Discussion:

Thirty patients were included in the study. Forty six percent were male (14/30), the mean age was 48 years old, and mean BMI was 33. Patients were followed for a minimum of 6 weeks to 3 months. We noted that the average time of symptom onset (most commonly abscess) to time of seton placement was 17 months. Of the 30 patients in the database, 23 (77%) were cured with the two stage LIFT procedure and 7 required further operation (most commonly fistulotomy and I&D of perirectal abscess). All but one patient healed completely without recurrence after a third operation.

In the current literature the rate of primary closure of fistula tract after LIFT ranges from 57 to 94%. Within this small series of patients we demonstrated a 77% success rate of primary fistula tract closure after LIFT. Twenty-nine patients (97%) healed when including a third operation, most commonly fistulotomy. Only 1 (3%) patient had recurrence of fistula tract.

Our results are similar to heal rates in published literature. Overall, our experience demonstrates LIFT utilizing bioprosthetic mesh is a safe and effective procedure for treatment of fistula in ano.