A NEW MINIMALLY INVASIVE SPHINCTER-SAVING PROCEDURE TO TREAT HIGHLY COMPLEX ANAL FISTULAS: TRANSANAL OPENING OF INTERSPHINCTERIC SPACE (TROPIS) PROCEDURE IN 238 HIGH COMPLEX ANAL FISTULAS

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Purpose/ Background
In complex fistulas with significant intersphincteric component (high transsphincteric, horseshoe and supralevator fistulas), the intersphincteric component acts like an abscess. Simply draining the intersphincteric sepsis once as is done in LIFT procedure would lead to recurrence in many cases (upto 50%). In such fistulas, laying open the intersphincteric part of the fistula through the transanal route (deroofing the abscess) ensures healing in most cases. This is the basis of TROPIS (transanal laying open of intersphincteric space) procedure. TROPIS was done and evaluated in high complex fistulas.

Methods/ Interventions
All consecutive operated patients of complex high fistula-in-ano included. All fistula were high (involving more than one-thirds of sphincter complex). Simple fistula in which fistulotomy was possible were excluded. Preoperative MRI scan was done in all the patients. The main outcome measures were healing rate, hospital stay, objective incontinence scores

Operative Procedure
A curved artery forceps was inserted through the internal (primary) opening into the intersphincteric part of the fistula tract. The mucosa and the internal sphincter over the artery forceps were laid open inside the rectum with electrocautery. The incision, starting from the internal opening, was usually curvilinear but could also be oblique, depending upon the direction of the intersphincteric tract. In case of horseshoe fistula, the incision extended on both sides of the midline posterior internal opening. In case of supralevator extension/tract, the incision was extended from the midline posterior internal opening up to the supralevator rectal opening.

Results/Outcome(s)
238 patients with high complex fistula-in-ano were operated over 4 years with a follow-up of 4-45 months (median-15 months). 29 patients were excluded due to short follow-up. Male/Female: 189/20, age-39.06 ± 9.3 years. 78% (163/209) were recurrent, 89% (186) had multiple tracts, 36.4% (76) had horseshoe tract, 27.8% (58) had supralevator extension and 37.3% (78) had associated abscess. Fistula healed completely in 83.3% (174/209) and didn’t heal in 16.7% (35/209). 27/35 of these were reoperated with the same procedure and fistula healed in 21 patients. Thus overall healing rate was 93.3% (195/209). There was no significant change in incontinence scores.

Conclusions
The success rate of TROPIS (>93%) in high complex fistula (all were high and majority were recurrent fistula with multiple tracts, horseshoe tracts and supralevator extension) is quite impressive. The external sphincter is not cut or damaged due to which the risk to continence is minimized. The technique is simple, minimally invasive, easy to reproduce, associated with little pain and early resumption of normal activities.

FIGURE LEGEND
RECURRENT HIGH POSTERIOR SUPRALEVATOR FISTULA WITH ABSCESS IN A 32 YEAR OLD MALE PATIENT.
LEFT UPPER - Preoperative Axial section showing Posterior intersphincteric abscess with fistula
LEFT LOWER- Preoperative Coronal section showing High supralevator fistula and abscess
MIDDLE UPPER- Postoperative Axial section showing completely healed fistula
MIDDLE LOWER- Postoperative Coronal section showing healed fistula
RIGHT UPPER- Schematic diagram Axial section
RIGHT LOWER- Schematic diagram Coronal section.

Conflict of Interest: Nil for all the authors