

# **Adoption and success rates of perineal procedures for fistula-in-ano: A systematic review.**

Authors: Kontovounisios C., Tekkis P., Tan E., Rasheed S., Darzi A., Wexner S.D.

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## **Abstract:**

**Aim:** Several sphincter-preserving techniques have been described with extremely encouraging initial reports. However, more recent studies have failed to confirm the positive early results. We evaluate the adoption and success rates of advancement flap procedures (AFP), fibrin glue sealant (FGS), anal collagen plug (ACP) and ligation of intersphincteric fistula tract (LIFT) procedures based on their evolution in time for the management of anal fistula. **Method:** A PubMed search from 1992 to 2015. An assessment of adoption, duration of study and success rate was undertaken. **Results:** We found 133 studies (5604 patients): AFP (40 studies, 2333 patients), FGS (31 studies, 871 patients), LIFT (19 studies, 759 patients), ACP (43 studies, 1641 patients). Success rates ranged from 0% to 100%. Study duration was significantly associated with success rates in AFP ( $P = 0.01$ ) and FGS ( $P = 0.02$ ) but not in LIFT or ACP. The duration of use of individual procedures since first publication was associated with success rate only in AFP ( $P = 0.027$ ). There were no statistically significant differences in success rates relative to the number of the patients included in each study. **Conclusion:** Success and adoption rates tend to decrease with time. Differences in patient selection, duration of follow-up, length of availability of the individual procedure and heterogeneity of treatment protocols contribute to the diverse results in the literature. Differences in success rates over time were evident, suggesting that both international trials and global best practice consensus are desirable. Further prospective randomized controlled trials with homogeneity and clear objective parameters would be needed to substantiate these findings.

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