STUDENTS' CORNER
LETTER TO THE EDITOR

Re-evaluating skin closure techniques following stoma reversal: Favouring purse-string over conventional linear closure

Abdullah Azam[1], Fatima Tariq Abdulaziz[2], Ushna Khan[3]

Dear Editor, The term stoma originates from the Greek word for 'mouth.' In medical terminology, it refers to a surgically created opening in a hollow organ that connects it to the body surface to allow waste material evacuation.[1] In adults, the most common indication for creating a stoma is colorectal cancer. Other less common causes include inflammatory bowel disease and diverticular disease that present with obstruction or penetrating bowel injuries. In children, stomas are used to manage congenital diseases such as Hirschsprung's disease and anorectal malformation.[2] The most common complication of stoma closure is surgical site infection (SSI), which is reported to occur in 2%-40% of cases following the conventional primary linear closure (PLC).[3]

A new skin closure technique, purse-string closure (PSC), has shown promising results compared to PLC. A meta-analysis which incorporated data from 5 randomized controlled trials assessed the incidence of SSI within 30 days postoperatively. The pooled analysis showed a statistically significant reduction in the SSI rate in favouring of PSC (OR -0.24; 95% CI -0.32, -0.15; $p<0.00001$).[4] This evidence is further corroborated by another meta-analysis that included data from two RCTs and four case-controlled series. The results indicated a markedly lower SSI rate in the PSC group (2.4%) compared to the PLC group (29.6%), representing an 80% reduction in SSI risk (OR 0.083; 95% CI 0.03–0.21; $p< 0.001$).[5]

[1,2]Fifth Year MBBS Student, Shifa College of Medicine, Islamabad, Pakistan;
[3]Department of General Surgery, Shifa International Hospital, Islamabad, Pakistan.

Correspondence: Abdullah Azam. e-mail: abdullahazam01234@gmail.com
ORCID ID: 0009-0005-6700-7674

Submission completed: 20-04-2025 **1st Revision received:** 07-05-2025
Acceptance: 09-07-2025 **2nd Revision received:** 08-07-2025

We suggest that if PSC is introduced in Pakistan as a technique of skin closure following stoma reversal it will potentially reduce post-surgical complications, particularly the incidence of SSIs. In Pakistan, the healthcare system is burdened by overcrowding, hence the need to adopt effective techniques for minimizing postoperative complications is essential, as it would reduce post-operative hospital stays and free up bed capacity for more critical cases.

Disclaimer: None.

Conflict of interest: None.

Funding disclosure: None.

DOI: https://doi.org/10.47391/JPMA.31005

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Author Contribution:
AA: Led the study, wrote the initial draft and final approval.
FTA: Contributed with writing, research, revision and final approval.
UK: Provided critical review, helped finalize and final approval.