STUDENTS' CORNER
LETTER TO THE EDITOR

Prophylactic mesh placement in stoma formation surgeries: A preventive strategy against parastomal hernias

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Dear Editor, Surgical incisions are the cornerstone of any successful operation, providing access to internal tissues and organs. The choice of incision has both short- and long-term consequences for the patient, including their recovery time and morbidity rates. Each surgical incision also has different cosmetic outcomes that the surgeon must consider.[1] As a general rule, surgeons opt for incisions that grant adequate exposure and easy access to the operative site.[2] One such incision is the pararectal incision, which is made along the semilunar line where the lateral aponeurosis meets the rectus abdominis muscle. This incision is used in stoma formation procedures.[1] Among the various complications following stoma creation—such as prolapse, stenosis, and peristomal skin irritation—formation of a parastomal hernia is the most common. Parastomal hernias can lead to serious complications including occlusion, strangulation and perforation. Conventional techniques for parastomal hernia repair, including local tissue repair, stoma relocation and mesh reinforcement, have shown disappointing results with recurrence rates reported between 30% and 76%.[3]

Recently, the use of prophylactic mesh placement following stoma formation has gained significant attention in clinical practice. One such systematic review, published in 2024, included two randomized controlled trials that showed a significant reduction (23% and 43%) in the incidence of parastomal hernia formation when a prophylactic mesh was placed. In both randomized controlled trials, the intervention group had an incidence of 21%, compared to 44% and 64% in the control groups. Furthermore, both randomized controlled trials also found no statistically significant difference in the incidence of surgical site infections or seroma formation between the mesh and non-mesh groups.[4]

In light of these findings, the authors advocate for the use of prophylactic mesh placement during stoma formation surgeries. As evidenced by the systematic review, this technique reduces the incidence of the parastomal hernias lower the frequency of follow-up visits. This will not only improve patient satisfaction but also alleviate the burden on the surgical department, especially in Pakistan, where the healthcare system is struggling with a limited number of hospitals.[5] Lastly, the authors recommend the conduct of large-scale randomized controlled trials as the RCTs included in the systematic review had fewer than 30 patients in the interventional group. This would improve the generalizability of the results as allow for better generalisability effectiveness across different populations while considering variables such as age, gender, body mass index, and comorbidities.

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