



Letter to the Editor

To Prevent Parastomal Hernia After Stomal Surgery, a Prophylactic Mesh Does Work[☆]



Una malla profiláctica funciona en la prevención de la hernia paraestomal

Recently, the results of a randomized controlled trial (RCT) to assess the effects of using a prophylactic mesh to prevent PSH have been published.¹ 104 patients in the mesh group and 107 in the nonmesh group completed the study. A lightweight polypropylene mesh in the sublay (keyhole) position was used. The primary endpoint was the rate of PSH in both groups judged clinically and radiologically (CT) 1 year after surgery. Hernia judged clinically was found in 30% of patients in the nonmesh group and in 29% in the mesh group ($P=.866$) and by CT was found in 26% and 24% respectively ($P=.748$). Based on the lack of differences in between the mesh and nonmesh arms, conclude that the prophylactic use of mesh to prevent PSH cannot be recommended.

We have recently reported the results of a meta-analysis and trial sequential analysis (TSA) on the same topic.² The primary outcome was the incidence of PSH with a minimum follow-up of 12 months with a clinical and/or CT diagnosis. We conclude the use of a prophylactic mesh when creating an end colostomy reduces the incidence of PSH. There was a 76% reduction of the incidence of PSH based on clinical diagnosis ($n=366$ patients) (risk ratio [RR] 0.24, 95% confidence interval [CI] 0.14–0.40; $P<.00001$, I^2 6%) and a 39% reduction based on a CT ($n=264$ patients) (RR 0.61, 95% CI 0.43–0.87; $P=.006$, I^2 37%). TSA³ confirmed statistical reliability of data as estimation of the required information size was reached for the primary outcome. A further analysis including the recent RCT¹ confirms the favorable results of prophylactic mesh placement. In this case, there is a 70% reduction of the incidence of PSH based on clinical grounds (RR 0.30, 95% CI 0.13–0.68; I^2 78%) and a 33% reduction based on CT diagnosis (RR 0.67, 95% CI 0.49–0.91; I^2 38%) for a total of 577 and 475 patients, respectively. In other words, after adding the new data¹ the size of the effect of the prophylactic mesh continues to be of a large magnitude, heterogeneity

remains low for CT diagnosis (scarce variability among studies as a result of a more objective radiological-based evaluation) while heterogeneity for clinical diagnosis is high (subjectivity of clinical examination in patients with small or incipient PSH).

Meta-analysis has become one of the pillars of evidence-based medicine.⁴ Meta-analysis of RCTs is not an infallible tool, but helps to improve precision of estimates of effect and settle controversies arising from apparently conflicting studies. A specific strict recommendation against the prophylactic use of mesh to prevent PSH¹ seems inappropriate in the light of results of a rigorously performed meta-analysis.

REFERENCES

- Odensten C, Strigård K, Rutegård J, Dahlberg M, Ståhle U, Gunnarsson U, et al. Use of prophylactic mesh when creating a colostomy does not prevent parastomal hernia. A randomized controlled trial-STOMAMESH. *Ann Surg*. 2017. <http://dx.doi.org/10.1097/SLA.0000000000002542>.
- López-Cano M, Brandsma HT, Bury K, Hansson B, Kyle-Leinhase I, Alaminó JG, et al. Prophylactic mesh to prevent parastomal hernia after end colostomy: a meta-analysis and trial sequential analysis. *Hernia*. 2017;21:177–89. <http://dx.doi.org/10.1007/s10029-016-1563-x>.
- Brok J, Thorlund K, Gluud C, Wetterslev J. Trial sequential analysis reveals insufficient information size and potentially false positive results in many meta-analyses. *J Clin Epidemiol*. 2008;61:763–9. <http://dx.doi.org/10.1016/j.jclinepi.2007.10.007>.

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4. Djulbegovic B, Guyatt GH. Progress in evidence-based medicine: a quarter century on. *Lancet*. 2017;390:415-23. [http://dx.doi.org/10.1016/S0140-6736\(16\)31592-6](http://dx.doi.org/10.1016/S0140-6736(16)31592-6).

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