O07 SHORT-TERM OUTCOMES OF A MULTICENTRE PROSPECTIVE STUDY USING A “VISIBLE” PVDF ONLAY MESH FOR THE PREVENTION OF MIDLINE INCISIONAL HERNIA

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Aim: Prophylactic meshes in high-risk patients prevent incisional hernias, although there are still some concerns about the best layer to place them in, the type of fixation, the mesh material, the significance of the level of contamination, and surgical complications. We aimed to provide answers to these questions and information about how the implanted material behaves based on its visibility under MRI.

Material and Methods: This is a prospective multicentre observational cohort study. Preliminary results from the first three months are presented. We included general surgical patients who had at least two risk
factors for developing an incisional hernia. MRIs were performed six weeks after treatment. A polyvinylidene fluoride (PVDF) mesh loaded with iron particles was used in an onlay position.

**Results:** Between July 2016 and December 2020, 178 patients were enrolled in the study. Surgery was emergent in 30.3% of cases, contaminated in 10.7% and dirty in 11.8%. A total of 5.6% of cases had postoperative wound infections, with BMI being the only significant risk factor (OR = 1.14, 95% CI = 1.00-1.31, p = 0.048). The formation of a seroma was also associated with BMI (OR = 1.11, 95% CI = 1.02-1.21, p = 0.02).

**Conclusions:** The prophylactic use of onlay PVDF mesh in midline laparotomies in high-risk patients was safe and effective in the short term, regardless of the type of surgery or the level of contamination. MRI allowed us to understand how the mesh behaves during the early process of integration.