47th ANNUAL INTERNATIONAL CONGRESS EHS 2025 JUNE 4-6 PARIS - FRANCE

It's just a mesh?

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Why, When, How? Absorbable synthetic mesh in complex abdominal wall reconstruction

Background

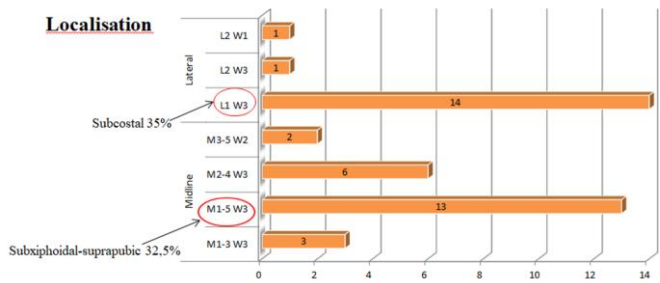
A rapidly developing surgical subspecialty nowadays is abdominal wall reconstruction (AWR). The number of patients who develop an incisional hernia is increasing, despite the development of laparoscopy and robotics. Complex abdominal wall reconstruction (CAWR) with biosynthetic mesh reinforcement has significantly improved outcomes.

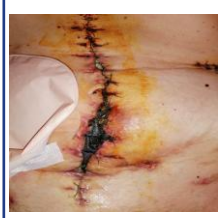
Method

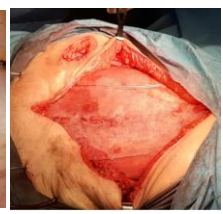
The present paper aims to review the experience of two surgical teams using both polypropylene (PP) mesh and biosynthetic mesh over 12 months. A total of 40 patients with CAWR were examined (19 with biosynthetic mesh and 21 with PP mesh) and age, sex, BMI (body mass index), comorbidities, mVHWG class (modified Ventral Hernia Working Group), previous recurrence, mesh location, presence of component separation, postoperative complications were analyzed.

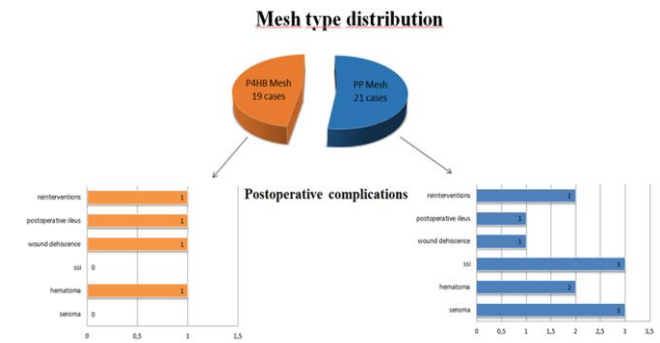
Results

The gender distribution of the cases was predominantly female (13 M, 27 F). Regarding the type of mesh used for these cases, the percentages were close (52,5% PP mesh, 47,5% P4HB mesh). Regarding the place of mesh, most of the lateral complex abdominal incisional hernias were subcostal (35% L1 W3), and in the case of the midline ones, most were subxiphoidal-suprapubic (32,5% M1-5 W3). Just 30% had previous recurrence and the other 70% were primary. The mVHWG grade classification shows 12 cases (30%) of grade 1, 21 cases (52,5%) of grade 2 and 7 cases (17,5%) of grade 3. Postoperative complications were minimal, in case of PP mesh use we had 3 cases with seroma and 3 with SSI, in contrast to the biosynthetic mesh use when there wasn't any case with these complications. The other complications were reinterventions (1 case in P4HB mesh use and 2 in PP mesh use), postoperative ileus (one case in both use), wound dehiscence (one case in both use) and hematoma (1 case in P4HB mesh use and 2 in PP mesh use).









Conclusions

A significant reduction of SSO (surgical site occurrence) was shown by the short-term results.
A shorter hospitalization was observed when biosynthetic meshes were used.
The recurrence at 6 months was not influenced by the type of the mesh.
Future observations of these patients will show the comparative risk of long-term recurrence after CAWR.

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