P084  MESH USE IN THE UNITED STATES: MESH TYPES AND THEIR INDICATIONS

Negin Fadaee1, Zayan Khanmohammed2, Robert Tung3, Desmond Huynh3, Shirin Towfigh4
1Beverly Hills Hernia Center, Beverly Hills, United States, 2University of California, Berkeley, 3Cedars-Sinai Medical Center, 4Beverly Hills Hernia Center

Aim: Synthetic non-absorbable mesh repair is considered standard of care for most hernias in the United States (US). The introduction of biologic absorbable mesh in the 2000’s has changed this practice and now novel synthetic absorbable and hybrid meshes are available. We aim to describe US trends of mesh use.

Material and Methods: We surveyed the Abdominal Core Health Quality Collaborative database for all repairs using mesh from 2012 to 2021. Mesh types and indications were analysed.

Results: Among 47,555 patients who underwent hernia repair with mesh, the majority were with synthetic non-absorbable meshes (96%). Absorbable mesh was placed in 2,039 (4%) patients and included biologic absorbable (893, 44%), synthetic absorbable (1,070, 52%), and hybrid (76, 4%) meshes. Synthetic non-absorbable mesh use was significantly predominant in all wound classes, including dirty/contaminated wounds (P < 0.01) [Figure 1]. Over time, we noted a trend toward lower incidence of absorbable and hybrid mesh use, from 18% to 2% (P < 0.01). Interestingly, we noted a relative increase in annual incidence of absorbable and hybrid mesh use in clean wounds, from 20% to 63% (P < 0.01) [Figure 2].

Figure 1 Mesh type used in each wound class

Figure 2 Absorbable mesh use in clean vs. not clean wounds.
**Conclusions:** In the United States, synthetic non-absorbable meshes are commonly used during hernia repairs in dirty and contaminated fields. At the same time, there is a significant increase in the use of absorbable and hybrid meshes in the repair of hernias with clean wound classification. The costs and long-term outcomes of such surgeon choices have yet to be validated.