Current developments in hernia repair; meshes, adhesives, and tacking.

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Abstract:

Open and laparoscopic hernia surgery continues to evolve with new products allowing surgeons multiple choices in treating their patients. The evolution towards tension-free techniques in dealing with hernias requires that today's surgeons know the options available in meshes as well as fixation methods in order to have the best outcomes. In recent years, there has been a rapid expansion in the number of meshes available. Currently, there are numerous uncoated, coated, and biologic meshes in production that can be used in hernia repair. This paper will focus on the latest developments in coated meshes that allow for intra-abdominal placement as well as the different types of biologic meshes and their typical uses. Tacking devices for laparoscopic hernia repair now come in titanium as well as absorbable devices. AbsorbaTackTM (Covidien, Norwalk, CT) and SorbafixTM (Davol, Warwick, RI) are two of the newest absorbable tacking devices thought to possibly benefit patients with decreased pain and long-term complications as compared with their titanium counterparts. Adhesives continue to be used more and more for hernia repair, especially in inguinal and paraesophageal hernia repairs. TissucolTM/TisseelTM (Baxter, Deerfield, IL) and EvicelTM (Ethicon, Somerville, NJ) are two types of fibrin glues that are available for use in hernia repair. Practitioners using these biologic adhesives think there is less pain compared with tacking.