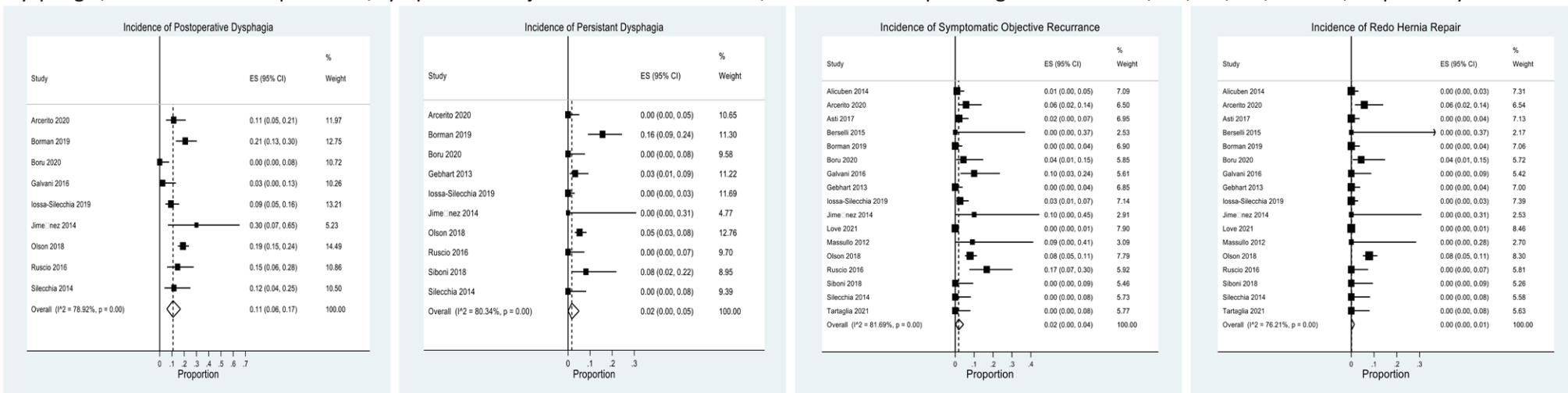


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**Introduction:** Hiatal hernia repair without mesh reinforcement is associated with high rates of hernia recurrence, reaching more than 50% at 5 years. Types of mesh include permanent synthetic, biologic, and biosynthetic. Studies have reported significant complication rates following synthetic mesh use; however, biologic meshes have higher long-term recurrence rates but lower rates of complications. Paucity of data exists regarding the use of biosynthetic mesh in hiatal hernia repair. We sought to review the outcomes of Bio-A mesh use in hiatal hernia repair.

**Methods:** A systematic literature review was performed in Cochrane Database, Embase, Medline, PubMed, and Scopus electronic databases using the terms “Bio-A mesh”, “Polyglycolic acid trimethylene carbonate mesh” and “hiatal hernia repair” to identify pertinent articles. Literature search was done according to PRISMA guidelines. Eventually, 17 studies were included in the study with a total of 1576 patients. Five outcomes (expressed by percentile rates) were assessed: Postoperative dysphagia, persistent dysphagia, mesh related complications (erosions and infections), hernia recurrence, and revisional repair surgery. Hernia recurrence was defined as a symptomatic recurrence that was proved objectively. Thus, asymptomatic objective recurrence wasn't included in the definition.

**Results:** Overall rates of postoperative dysphagia, persistent dysphagia, mesh related complications, symptomatic objective hernia recurrence, and revisional repair surgeries were 15%, 4%, 0%, 3%, and 2%, respectively. When taking into consideration mean follow-up duration, 6 studies that don't report mean follow-up durations were excluded; leaving 11 studies with 1178 patients. Mean follow-up duration for these patients was 33.4 months, rates of postoperative dysphagia, persistent dysphagia, mesh related complications, symptomatic objective hernia recurrence, and revisional repair surgeries were 14%, 3%, 0%, 4%, and 2%, respectively.



**Conclusion:** Excellent short-term and medium-term outcomes of Bio-A mesh use during hiatal hernia repair was demonstrated in this study. To comment on long-term outcomes; prospective studies with larger sample size and longer-term follow up duration are needed.

Courtesy of the American Foregut Society (AFS). Authors report no financial ties or support from W. L. Gore & Associates.

Diab ARF, Sujika JA, Saad AR, DuCoin CG, Docimo S. Bio-A mesh use in hiatal hernia repair. A systematic literature review. Presented at the 2022 American Foregut Society Annual Meeting; September 15-18, 2022; Orlando, FL.

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