Preliminary report of a sutureless onlay technique for incisional hernia repair using fibrin glue alone for mesh fixation.

Authors: Stoikes N, Webb D, Powell B, Voeller G

Publication Date: 2013

Abstract:

The Rives repair for ventral/incisional (V/I) hernias involves sublay mesh placement requiring retrorectus dissection and transfascial stitches. Chevrel described a repair by onlaying mesh after a unique primary fascial closure. Although Chevrel fixated mesh to the anterior fascia with sutures, he used fibrin glue for fascial closure reinforcement. We describe an onlay technique with mesh fixated to the anterior fascia solely with fibrin glue without suture fixation. From January 2010 to January 2012, 50 patients underwent a V/I hernia onlay technique with fibrin glue mesh fixation. Records were reviewed for technical details, demographics, mesh characteristics, and postoperative outcomes. Primary fascial closure with interrupted permanent suture was done with or without myofascial advancement flaps. Onlay polypropylene mesh was placed providing 8 cm of overlap. Fibrin glue was applied over the prosthesis and subcutaneous drains were placed. Mean age was 62.4 years. Mean body mass index was 30.1 kg/m(2). Average mesh size was 14.5 cm x 19.1 cm. Mean operative time was 144.4 minutes (range, 38 to 316 minutes). Mean discharge was postoperative Day 2.9 (range, 0 to 15 days). Morbidity included eight seromas, one hematoma, and three wound infections. Seventeen patients required components separation. Mean follow-up was 19.5 months with no recurrences. This is the first series describing fibrin glue alone for mesh fixation for V/I hernia repair. It allows for immediate prosthesis fixation to the anterior fascia. Early results are promising. Potential advantages include less operative time, less technical difficulty, and less long-term pain. A prospective trial is needed to evaluate this approach.