

TITLE: Long-Term Outcomes and Quality-of-Life After Incisional Hernia Repair with STRATTICE™ Mesh

Akhila Ankem, BS^a, Elizabeth H Bruenderman, MD^a, Jeremy Gaskins, PhD^b, Robert CG Martin, MD, PhD^c, Farid J Kehdy, MD^a

- a. Department of Surgery, University of Louisville, Louisville, KY
- b. School of Public Health and Information Sciences, University of Louisville, Louisville, KY
- c. Department of Surgery, Division of Surgical Oncology, University of Louisville, Louisville, KY

Running Head: Outcomes after STRATTICE™

Keywords: ventral hernia repair, incisional hernia repair, STRATTICE™, outcomes

This research was supported by a grant from Allergan.

Corresponding Author:
Farid J. Kehdy, MD
University of Louisville
Department of Surgery
550 S. Jackson St, 2nd floor
Louisville, KY 40202
Business: 502-852-6191
Home: 502-345-0675
Farid.Kehdy@louisville.edu

Introduction:

Mesh implantation during incisional hernia repair (IHR) is widely accepted. Selection between synthetic and biologic mesh is still controversial, as long-term outcome data after biologic mesh placement is limited. This study aimed to evaluate long-term outcomes after incisional hernia repair (IHR) with STRATTICE™ biologic mesh reinforcement.

Methods:

Under an-IRB approved protocol, patients who underwent IHR with non-cross-linked, porcine, acellular dermal matrix (STRATTICE™) at three tertiary care centers between January 2013 and July 2017 were identified. Patient characteristics and operative details were retrospectively collected. Long-term (greater than 24 months) recurrence rates and quality-of-life (QOL), as measured by the validated Hernia-Related Quality-of-Life Survey (HerQLes), were collected prospectively via phone interviews.

Results:

A total of 63 patients (30% male) were evaluated. Median age was 53 (range 25-80). Median BMI was 32 (19-80). Hernia grades, as classified by the Ventral Hernia Working Group, included I (2%), II (49%), III (35%), IV (14%). Twenty-seven (43%) were recurrent hernias. Median follow-up was 44 (24-83) months. Thirty-three (52%) reported hernia recurrence, with a recurrence rate of 1.1 per 100 person-months. Sixteen (25%) developed a post-operative wound infection. Recurrence was more common among patients with longer follow-up ($p=0.011$). Most (63%) reported mild to significant improvement in their QOL since repair. Median HerQLes score was 38 (12-72) (12 indicating no reduction in QOL from hernia, 72 indicating significant reduction). HerQLes scores were significantly worse for patients with post-operative weight gain ($p=0.002$), postoperative wound infection ($p=0.029$), and hernia recurrence ($p < 0.001$).

Conclusions:

This study indicates that greater QOL can be expected after IHR with STRATTICE™ biologic mesh in patients who avoid postoperative wound infection, postoperative weight gain, and hernia recurrence. While a longer follow-up was associated with a higher recurrence rate, QOL was improved in most patients at a follow-up of nearly four years.