Aim: Laparoscopic paraesophageal hernia repair is an effective treatment for symptomatic paraesophageal hernias. To reduce recurrence rates, the use of prosthetics for the crural repair has been suggested. Mesh-related complications are rare, but known to be disastrous. To address another form of crural repair, polypropylene strips are suggested. This study aimed to assess peri- and postoperative complications of reinforcement of the cruroplasty with polypropylene strips.

Material and Methods: From 2013 to 2020, patients with a type II, III or IV primary or recurrent paraesophageal hernia that underwent cruroplasty with polypropylene strips were retrospectively reviewed. Intra- and postoperative complications were graded according to the Clavien-Dindo classification. The incidence of symptomatic recurrent hiatal hernia (CT or endoscopy proven) and hospital stay were assessed.

Results: One-hundred-and-fifty-eight patients were included. Mean age was 65 years (standard deviation 10.4), 119 patients were female (75.3%). Almost 50% of surgeries took place between 2018 and 2020. Median follow-up was 7 months (interquartile range 17.5). Mean operation time in the primary hernia group was 159 minutes (standard deviation 39.0), and length of stay was 4.4 days. In 3/158 patients (2.0%) intra-operative complications occurred. Two patients developed a grade IV and seven patients a grade III postoperative complication. No mortality was recorded. Twelve recurrences (8.2%) were detected in the primary hernia group, and one (9.1%) in the recurrent hernia group.

Conclusions: There were no mesh-related complications seen and symptomatic recurrence rate was low, but longer follow up is needed.