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Laparoscopic Total Extraperitoneal Repair and Open Prolene Hernia System for Inguinal Hernia Repair Have Similar Outcomes: A Retrospective Study

Sergio Susmallian[1,2], Royi Barnea[2,3], Oleg Ponomarenko[4]
[1]Department of General Surgery, Assuta Medical Center, Tel Aviv, Israel
[2]Faculty of Medicine, Ben Gurion University of the Negev, Beer Sheva, Israel
[3]Assuta Health Services Research Institute, Assuta Medical Center, Tel-Aviv, Israel
[4]Department of General Surgery, Barzilai University Medical Center, The Sheila and Eric Samson Surgical Hospital, Ashkelon, Israel

Abstract
Objective: To compare the results of Laparoscopic total extraperitoneal inguinal hernia repair (LTEPR) and the open prolene hernia system repair (OPHSR), in terms of complications, postoperative pain and quality of life.
Background: Inguinal hernia repair is one of the most frequent surgeries made by general surgeons. Although, with the technological development and scientific advances even today it is not possible to define which is the gold standard procedure to hernia repair.
Material and Methods: For this observational study, all 577 consecutive patients who underwent hernia repair were included in the study, 293 LTEPR, and 284 OPHSR. The average age for OPHSR was 62.49 years and for LTEPR 55.35 years. The average follow-up of 38.10 months, the mean operative time for OPHSR was 55.58 minutes and for LTEPR was 45.46 minutes, with a hospital stay of 1.1 and 1.08 respectively.
Results: Each type of hernia was classified according to Gilbert/Rutcow-Robbins criteria, resulting in the OPHSR, 80.28 % were assigned to class 1 to 3 and only 19.72% in class 4 to 7. In the LTEPR, 52.22% of the patients are classified in degree 1 to 3 and 47.78% were class 4 to 7. In the LTEPR group there was more complications with 9 cases of bleeding controlled at the same time, one tear of the bladder, no other visceral complications; in the OPHSR group, there were fewer complications with significant differences (p= .014). The postoperative complications, principally hematoma, and seroma were the most common complication without statistic differences. The postoperative pain was in the OPHSR group, 77.46% of patients reported suffering from mild or pain-free pain, 21.47% reported moderate pain, and 1.05% reported severe pain, in the LTEPR group 74.4% of patients reported mild pain, 25.25% reported moderate pain and only one patient reported severe pain, without significant differences. In both groups, the patients reported a high index of satisfaction, and in the LTEPR group scare results were better than OPHSR (p> .001).
Conclusion: The outcomes of LTEPR are similar to OPHSR. However, LTEPR has shorter operative time, more intraoperative complications and better scar satisfaction.
Key words: inguinal hernia, postoperative complications, outcomes assessment