Comparative Study of Outcomes of Nonfixation of Mesh versus Fixation in Laparoscopic Total Extra Peritoneal (TEP) Repair of Inguinal Hernia: A Prospective Randomized Controlled Trial

Authors : Raman Sharma, S. K. Jain

Abstract : Aims and Objectives: Fixation of the mesh during laparoscopic total extraperitoneal (TEP) repair of inguinal hernia is thought to be necessary to prevent recurrence. However, mesh fixation may increase surgical complications and postoperative pain. Our objective was to compare the outcomes of nonfixation with fixation of polypropylene mesh by metal tacks during TEP repair of inguinal hernia. Methods: Forty patients aged 18 to72 years with inguinal hernia were included who underwent laparoscopic TEP repair of inguinal hernia with (n=20) or without (n=20) fixation of the mesh. The outcomes were operative duration, postoperative pain score, cost, in-hospital stay, time to return to normal activity, and complications. Results: Patients in whom the mesh was not fixed had shorter mean operating time ($p < 0.05$). We found no difference between groups in the postoperative pain score, incidence of recurrence, in-hospital stay, time to return to normal activity and complications ($P > 0.05$). Moreover, a net cost savings was realized for each hernia repair performed without stapled mesh. Conclusions: TEP repair without mesh fixation resulted in the shorter operating time and lower operative cost with no difference between groups in the postoperative pain score, incidence of recurrence, in-hospital stay, time to return to normal activity and complications. All this contribute to make TEP repair without mesh fixation a better choice for repair of uncomplicated inguinal hernia, especially in developing nations with scarce resources.
Keywords : postoperative pain score, inguinal hernia, nonfixation of mesh, total extra peritoneal (TEP)