Open Mesh versus Laparoscopic Mesh Repair of Inguinal Hernia.

Scope of study: Multicenter, randomized trial at 14 VA Medical Centers of 2,164 males with inguinal hernias, comparing 1087 open repairs to 1077 laparoscopic repairs.

**A.** Pt inclusion criteria: 18 years of age or older with a diagnosis of inguinal hernia. Exclusion criteria included: ASA class IV or class V, those with contraindications to general anesthesia or pelvic laparoscopy, or complications of hernias such as bowel obstruction, bowel strangulation, peritonitis, bowel perforation, local or systemic infection.

**B.** Pt characteristics were comparable as to mean age, race, duration of hernia, laterality of hernia, coexisting conditions and ASA class.

**C.** Results: two year follow-up completed in 85.5%, group I = open hernia repair vs. II = laparoscopic hernia repair:

<table>
<thead>
<tr>
<th></th>
<th>Recurrence (all surgeons)</th>
<th>Complications</th>
<th>Recurrence (experienced surgeon)</th>
<th>Recurrence (secondary/recurrent hernia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Hernia</td>
<td>4.9%</td>
<td>33.4%</td>
<td>5.1%</td>
<td>14.1%</td>
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<tr>
<td>Laparoscopic Hernia</td>
<td>10.1%</td>
<td>39%</td>
<td>4.1%</td>
<td>10.0%</td>
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</tbody>
</table>

(1) Recurrences were more common in the laparoscopic group than in the open group.
(2) Rate of complications was higher in the laparoscopic group than in the open group. (39.0% vs. 33.4%).
(3) Pain at day of surgery and at two weeks was less in the laparoscopic group and there was a shorter time to return to normal activities in the laparoscopic group than in the open group. There were no differences in activity levels three months after the procedure.
(4) Rates of recurrence after repair of recurrent hernias were similar in the open group than in the laparoscopic group (14.1% vs. 10.0%).
(5) For primary hernia repairs performed by highly experienced surgeons (more than 250 procedures), recurrence rates did not differ significantly according to the type of procedure in the open group vs. in the laparoscopic group (5.1% vs. 4.1% recurrence).

**D.** Conclusions: The open mesh repair technique in men with inguinal hernias has a lower recurrence rate and fewer post operative complications than the laparoscopic technique, unless the surgeon is highly experienced (done more than 250 cases). However, those who underwent the laparoscopic repair had less pain and returned to usual activities sooner than those who underwent open repair.