

## EVALUATION OF SAFETY AND EFFECTIVENESS OF POP (PELVIC ORGAN PROLAPSE) TREATMENT USING POLYPROPYLENE MESH PELVIMESH® ANTERIOR AND POSTERIOR BY HERNIAMESH® – ITALY AND PROLIFT ANTERIOR AND POSTERIOR BY JOHNSON & JOHNSON DEPENDING ON THE TECHNIQUE AND THE KIND OF THE MESH APPLIED.

### Hypothesis / aims of study

On the market there are a lot of types of ready POP operation treatment kits, they differ among themselves mainly according to technical details concerning the mesh insertion. Common feature is the fact that mesh arms go through obturator foramen or sacrospinous ligaments. The differences concern the properties of the polypropylene mesh used and /or the system of its fixation and the way mesh arms are pulled through ligaments. In the research we studied the frequency of perioperative complications, early postoperative results, treatment effectiveness after 3 months of the operation and the safety of ready kits we most often applied: Pelvimesh Anterior and Posterior (Herniamesh - Italy) and Prolift Anterior and Posterior (Johnson & Johnson).

### Study design, materials and methods

In retrospective study we compared the frequency of perioperative complications and treatment results three months after the surgical procedure in patients in two groups, according to POP type. In the first group there were patients with anterior compartment disorders who had Prolift Anterior (n=112) or Pelvimesh Anterior (n=128) placed. In the second group the patients with posterior and central compartment who had Prolift Posterior (n=93) and Pelvimesh Posterior (n=104) fitted. As a criteria of early peri- and postoperative complications the following were accepted: profuse perioperative bleeding (hemoglobin decrease of 3g%), perioperative damage of urinary bladder and bowel, presence of haematoma in paravesical and perirectal space, urine retention after miction on the second day after the operation (>100ml), uroschisis after catheter removal, early operative failure (during 3 months following the operation), mesh erosion.

### Results

In the range of described peri- and postoperative complications no statistically significant differences were reported between the studied groups (Pelvimesh vs Prolift). In none of studied groups any damage of urinary bladder or bowel was found. The most common complication was that of urine retention: Pelvimesh Ant. 6,35% vs Prolift Ant. 4,29%, ( $p=0,5476$ ); Pelvimesh Post. 3,92% vs Prolift Post. 5,26% ( $p=0,9936$ ). Early postoperative results did not statistically differ between Pelvimesh and Prolift group, the frequency of early operative failure (recurrent POP) were 2,38% vs 0%  $p=0,4878$  (Pelvimesh vs Prolift Ant.) and 3,92% vs 1,75%  $p=0,7817$  (Pelvimesh vs prolift Post.) Early postoperative outcomes with POP treatment also did not differ significantly statistically between Pelvimesh and Prolift groups.

### Interpretation of results

On the basis of performed research no advantage of any of the ready POP treatment kit was indicated. In spite of applying different systems for mesh placement and pulling the arms through ligaments (either obturator foramen or sacrospinous ligament), in Pelvimesh Anterior vs Prolift Anterior and Pelvimesh Posterior vs Prolift Posterior groups no significant statistically differences were demonstrated as concerning early peri- and postoperative complications occurrence or efficiency in POP treatment.

### Concluding message

On the basis of analysis of the studied material we proved that the frequency of early postoperative complications is similar, independently of the kind of the kit applied for managing disorders of sexual organs statics. Both kits: Pelvimesh and Prolift turned out to be equally safe and efficient.

### Disclosures

**Funding:** No funding or grant **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Our study is evaluation of safety and effectiveness of pelvic organ prolapse treatment using polypropylene mesh. This method of treatment is known and accepted, we compare the results of treatment with using two kinds of polypropylene mesh **Helsinki:** Yes **Informed Consent:** Yes