

# COMPARISON BETWEEN OPEN, LAPAROSCOPIC VS ROBOTIC

## SIMPLE PROSTATECTOMY IN A REAL-LIFE SETTINGS:

### ANALYSIS OF TRIFECTA OUTCOMES

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### Aim

Open prostatectomy (OP) is still the most effective treatment for BPH, however it is as well the most invasive. To overcome the limitations of OP, robotic/laparoscopic simple prostatectomy has been recently introduced.

Aim of our study is to analyse outcomes and safety of open, laparoscopic and robotic simple prostatectomy.

### Materials & Methods

- Study time: January - Semptember 2018
- 159 patients with lower urinary tract symptoms and large prostates (>80cc) undergoing:
  - laparoscopic (LSP),
  - robotic (RASP)
  - open simple prostatectomy (OSP)
- Outcomes were evaluated considering the Trifecta favourable outcome
- Complications were evaluated according to the modified Clavien classification system

#### TRIFECTA

- No perioperative complications
- Postoperative IPSS <8
- Postoperative Q<sub>max</sub> >15ml/s

### Results

|                          | OSP          | LSP          | RSP          | p <sup>1</sup> | p <sup>2</sup> | p <sup>3</sup> |
|--------------------------|--------------|--------------|--------------|----------------|----------------|----------------|
| Age (years)              | 70 (65/76)   | 68 (63/73)   | 67 (63/72)   | 0,203          | 0,471          | 0,117          |
| Preop PSA (ng/ml)        | 8 (5/14)     | 4 (3/8)      | 6 (4/8)      | 0,001          | 0,021          | 0,197          |
| Prostate Volume (cc)     | 104 (91/123) | 120 (92/140) | 101 (85/118) | 0,053          | 0,254          | 0,024          |
| Preop IPSS               | 18 (14/18)   | 20 (18/22)   | 33 (27/33)   | 0,020          | 0,001          | 0,001          |
| Preop Qmax ml/s          | 7 (5/10)     | 9 (6/12)     | 8 (7/8)      | 0,186          | 0,073          | 0,833          |
| Postop Qmax ml/s         | 19 (16/28)   | 24 (19/31)   | 23 (21/27)   | 0,220          | 0,651          | 0,170          |
| Postop IPSS              | 5 (3/6)      | 3 (2/6)      | 2 (1/3)      | 0,102          | 0,026          | 0,145          |
| Positive Flow Outcome    | 59/61:96%    | 58/66:88%    | 32/32:100%   | 0,065          | 0,040          | 0,300          |
| Positive Symptom Outcome | 60/61: 98%   | 63/66: 95%   | 26/32: 81%   | 0,092          | 0,022          | 0,001          |
| No complications         | 51/61: 83%   | 60/66: 91%   | 30/32: 93%   | 0,215          | 0,232          | 0,166          |
| Trifecta                 | 49/61: 80%   | 51/66:77%    | 24/32:75%    | 0,176          | 0,803          | 0,552          |

### Conclusion

- Simple prostatectomy represents a **safe and effective procedure** in the treatment of large adenomas.
- Laparoscopic and robotic** assisted simple prostatectomy presented a **lower**, though non-significant, **risk of complications**
- Most complications were low grade (Clavien ≤II)
- The three surgical approaches yielded similar TRIFECTA outcomes**
- Larger, randomized trials would be needed to validate these findings