

## A NOVEL SIMPLE LAPAROSCOPIC NEEDLE RETRACTOR - NEY-LIFT

### Hypothesis / aims of study

Minimally invasive surgery is still in evolution. Throughout the past two decades numerous devices have been developed to enable safer and faster procedures. However, retraction capabilities were put aside and currently, organ laparoscopic retraction is based on standard laparoscopic tools. In the era of minimizing the number of ports and shrinking their size, our aim was to develop a simple retraction hitchhike or slipnode that could be placed in the peritoneal cavity through a standard trocar, positioned for adequate retraction, and left in place for the entire procedure. These devices would obviate the need for inserting ports dedicated for retraction only and hence contribute to the reduction of the number of incisions. Herein, we present our initial experience with a novel internal simple retractor.

### Study design, materials and methods

The Ney-lift retractor is a simple and easy to use needle retractor. It can be inserted using 0.8 mm standard injection needle to hitchhike and lifting exposing the organs underneath.

### Results

A total of 36 operations were performed using the Ney-lift retractor for bowel and ovary retraction including sacropexy procedure, robotic-assisted sacropexy, endometriosis procedures, and adhesions exploration. The bowel was adequately retracted and enabled access to the operating field. Repositioning was easily performed with progression of the surgery when necessary. The mean operative time was significantly reduced by used the Ney-Lift (-25min).

### Concluding message

Needle retraction devices such as the Ney-lift retractor are one step further in minimizing trauma to the abdominal wall during minimal invasive surgery. This study showed that the Ney-lift is easy and safe to use with a shorter operative time. It obviates the need for extra trocar incisions, frees up the surgeons' hands, and may enable performing complicated endoscopic single-site laparoscopy. Longer prospective and randomized trials are needed to confirm these results.

### References

1. Sacropexy
2. Retractor
3. Device

### Disclosures

**Funding:** Nothing **Clinical Trial:** Yes **Public Registry:** No **RCT:** Yes **Subjects:** HUMAN **Ethics Committee:** Medical University Charite **Helsinki:** Yes **Informed Consent:** Yes