Summary

**Introduction:**
Transabdominal laparoscopic (TAPP) approach in the therapy of inguinal hernia is a suitable alternative to classical open inguinal hernia repair mainly in the hands of an experienced surgeon. TAPP repair offers the possibility of gentle dissection with implantation of the mesh from posterior approach.

**Hypothesis and objectives of the work:** The fixation of mesh through penetrating techniques using staples, clips or screws is associated with a significantly increased risk of developing a post-herniotomy inguinal pain syndrome (CPIP). The aim of the thesis is to review options of self-fixating meshes in laparoscopic TAPP procedure without additional fixation. Furthermore to evaluate effect of this technique on development of the chronic postoperative groin pain and also on frequency of hernia recurrence and mesh migration.

**Patients and methods:**
Data analysis included all patients, who underwent inguinal hernia surgery at our Surgical Department within the period from 1.10.12 to 31.12.14 and fulfilled the inclusion criteria. Standard surgical technique was used. Data were entered and subsequently analyzed on Herniamed platform.

**Results:**
There were 241 patients enrolled to the group of which 396 inguinal hernias were repaired. The minimal follow up was at 12 months. At the assessment in one year there was reported CPIP in the groin in 2 patients (0.97%) (4-6 VAS). There were no recurrence and no mesh migration.

**Conclusion:**
Our prospective study demonstrates that laparoscopic inguinal hernia repair using TAPP technique with implantation of a self-gripping mesh seems to be fast, safe, effective and an optimal compromise for this type of hernioplasty, which according to our results reduces the occurrence of CPIP with simultaneously low recurrence and mesh migration rate.

**Key words:**
TAPP, laparoscopic inguinal hernia repair, CPIP, postherniorrhaphy pain, self-fixating mesh