

**Introduction:** The knowledge of anatomy is crucial for introduction of new surgical methods. It is also of especial use while dealing with surgical complications during surgeries with limited surgical field, where the way of approach limits the management of complications. It was assumed that common anatomical variations would influence different efficacy of surgeries and would explain potential complications.

**Methods:** During anatomical dissections fifty female cadavers were dissected and tension-free vaginal tapes TVT-S H, TVT-S U, TVT Abbrevio and Ajust were studied. A novel descriptive system for localisation of the tape was created. During the dissection the tape was located and its localisation and fixation was described.

**Results:** Common anatomical variation in the sample was corona mortis with frequency of 72 %. Preperitoneal fatty plug, which is recognized by some authors as the first stage of obturator hernia, was found in 40 % in obturator canal. The proper fixation of TVT-S H was achieved in 53.6 %. In 10.5 % urinary bladder was injured. In case of TVT-S U the proper fixation occurred in 63.8 %. In two cases the inserter was nearby corona mortis. Within the group of TVTO Abbrevio the tape was fixated properly into the obturator complex (consists of the obturator membrane and obturator muscles) in 81.25 %, but did not penetrate into the group of thigh adductors. Ajust tape was inserted properly into the obturator complex in 86.3 %.

**Conclusion:** Mechanism and causes of failures and complications of selected TVT were described.