## **Abstract**

Studies evaluating quality of life are in agreement regarding severity of symptoms and large number of cases of pelvic organs prolapse in women. Therefore, there has been a long-term effort to create optimal approach, including surgical procedures with minimal intra- and posto-perative complications.

Historically performed procedures for pelvic organ prolapse (POP) are being either abandoned or modified, with some others becoming obsolete. New materials, especially artificial, have enabled new possibilities in POP management. However, unfortunately, they have also caused new types of complications, which urge the need to carefully consider any surgical indication. Worldwide mostly urogynecology teams are striving to improve the management of POP. In recent years, laparoscopic sacrocolopoexy (LSC SCP) has been performed at our center. This procedure is currently being recognized as the gold standard of surgical care.

The main aim of this dissertation thesis is to evaluate surgical management used at our center with the emphasis on the importance of ultrasonographic evaluations during the pre- and posto-perative period and to evaluate its limits and possibilities during the long-term follow-up. The other aim was to determine the incidence of coincidental asymptomatic premalignant and malignant lesions in women undergoing POP reconstructive surgery and to refine the preoperative consultation in the patient decision-making process. Another aim of this dissertation thesis is to assess the proportion of women with a significant apical defect suitable to be treated by LSC SCP, the safety and efficacy of the procedure related to body mass index in the women after POP surgery and the anatomical and functional effect of laparoscopic hysteropexy compared to LSC SCP with concomitant subtotal or total hysterectomy, also with ultrasonographic evaluation of the mesh placement. This dissertation thesis is trying to find answers to some questions regarding the correct POP management and ultrasonography application in preoperative planning and postoperative follow-up.

**Keywords:** pelvic organ prolapse, ultrasonography, pelvic floor, urogenital hiatus, levator avulsion, mesh, sacrocolpopexy