Obstetric interventions and pelvic floor disorders - Abstract

One of the principal objectives of obstetric interventions in the second stage of labor is prevention of pelvic floor trauma and associated pelvic floor disorders. The most commonly used and also most frequently discussed interventions are manual perineal protection and episiotomy. The majority of pelvic floor disorders are of subjective nature. Therefore, tools for objectification and severity quantification of these disorders are the key to reliable comparison and identification of the most effective interventions.

The aim of the dissertation was to find the most effective modification of manual perineal protection, to compare two frequently used types of episiotomy regarding all pelvic floor disorders and finally to find a consensus on the most suitable instrument for anal incontinence severity assessment.

Our studies concerning **manual perineal protection** experimentally described the direction and extent of perineal deformation during vaginal delivery. The subsequent studies on biomechanical model demonstrated that the most effective method of manual perineal protection in peak perineal strain reduction is when the fingers are placed on the perineum 6 cm laterally and 2 cm ventrally from the posterior commissure at both sides and are approximated during the delivery of the fetal head by 1 cm,.

Our studies concerning **episiotomy** demonstrated equivalence in the outcome of a vaginal delivery with mediolateral and lateral episiotomy. We found no clinically relevant differences in the two episiotomy types in the extent of perineal trauma, its healing, short-term and long-term pain, dyspareunia, sexual intercourse resumption and its various aspects or painful defecation. Furthermore, we found no difference in the outcome upon comparison of episiotomy performed before and at crowning of the fetal head. However, the sub-analyses suggested that if an episiotomy must be performed before crowning, the mediolateral type should be preferred.

A **global survey** among all specialties dealing with research, diagnostics or treatment of anal incontinence identified the most frequently used anal incontinence severity assessment tool worldwide (Wexner score). Furthermore, we found a positive approach of the specialists towards modification of the St.Mark's score, a recommended scoring system for anal incontinence after childbirth.

The dissertation contributed to the pool of knowledge concerning obstetric interventions and their relation to pelvic floor disorders.