Women's First Gastrointestinal Activation Post-elective Cesarean Birth During Postpartum Hospitalization: A Comparison of Paula Method (the Circular Exercises Method) to Standard Care

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## Protocol

Caesarean section births constitute a significant percentage of all births in the western world and since the 1980s, there has been a constant rise. Caesarean section births can be associated with various post-operative complications, including poor peristalsis. In the hospital where this study was performed, the main treatment to accelerate post-operative bowel movement include early water drinking, early ambulation, and the use of laxatives. In this study these modalities are defined as the standard therapy.

Since the standard methods are not always effective and not suitable for all women who underwent a Caesarean delivery, there is a need for finding alternative treatments to accelerate bowel function. The method examined in this study is called "the Paula method for the training of ring muscles". According to this method, the contracting and releasing of the one ring muscle causes other involuntary ring muscles to be activated as well, including intestinal system muscles.

The purpose of this study is to examine the effectiveness of the Paula Method compared with the standard treatment offered to women after elective Caesarean delivery. In our study, gastrointestinal activation was defined as the initial appearance of intestinal sounds, first flatus passage and first defecation after the surgery.

This is randomized controlled clinical study examined the effectiveness of performing training according to the "Paula Method" to accelerate gastrointestinal activity in women after elective Caesarean section, compared with the standard treatment. The study included 64 women following elective Caesarean section performed under regional anesthesia. The participants were randomized on a 1:1 basis into a training group and a control group after signing the informed consent document. The women in the training group performed ring muscle training according to the Paula Method five minutes of exercise six times a day and those in the control group were treated with the standard protocol. During the experiment, data was collected on the timing of appearing the first bowel sounds, first flatus passage and first defecation after surgery. In addition, demographic data as well information regarding pain medications used during the hospitalization and course of the admission were collected.

All data collected during the study were analyzed using SPSS software. With the help of the software, an analysis of the demographics and health of the sample was performed. In addition, the mean time and standard deviations of first bowel sounds, first flatus passage and first defecation after surgery were obtained from the analysis, as well as frequency of postoperative complications in each group and other data. Based on these data, conclusions were drawn about the efficacy of the two intervention methods studied in this study in the operation of the gastrointestinal tract after cesarean section. The effect of taking different types of pain medication on the duration of hospitalization in both groups was examined using the Pearson correlation and the results were confirmed by T-test.

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