New approach in vaginal prolapse repair: mini-invasive surgery associated with application of platelet-rich fibrin.

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Abstract:

INTRODUCTION AND HYPOTHESIS: Platelet-rich fibrin (PRF) matrix is an autologous leukocyte and PRF biomaterial. PRF is a fibrin matrix polymerized in a tetramolecular structure with the incorporation of platelets, leukocytes, cytokines, and circulating stem cells. The three-dimensional structure of PRF is optimal for migration of endothelial cells and fibroblasts. It permits rapid angiogenesis and easier remodeling of fibrin in a more resistant connective matrix. In vaginal surgery, PRF may act as a graft material with better healing and better functional outcome.

METHODS: We performed a prospective observational study on ten consecutive women requiring surgery for prolapse recurrence (stage II or higher). These women had high risks for recurrence, erosion with graft materials, and intraoperative and postoperative complications with traditional pelvic reconstructive surgical procedures. ICS score and P-QoL Questionnaire results were assessed preoperatively and postoperatively. Surgery consisted of anterior, posterior, or apical repair plus PRF. Follow-up was performed at 1, 6, 12, 18, and 24 months.

RESULTS: Anatomically, the success rate was 80%. Prolapse symptoms improved by 100%. Sexual activity increased by 20% without dyspareunia. The surgical time was satisfactory (mean, 38.5 min). There were no intraoperative or postoperative complications.

CONCLUSIONS: The use of PRF for site-specific prolapse repair is associated with a good

functional outcome because of the healing and mechanical properties of PRF.