

## **A Novel Method for Iatrogenic Vesicovaginal Fistula Treatment: Autologous Platelet Rich Plasma Injection and Platelet Rich Fibrin Glue Interposition**

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### **Introduction:**

Vesicovaginal fistula remains a challenge in surgical therapy. In this study autologous platelet rich plasma and platelet rich fibrin glue were used as a minimally invasive approach for vesicovaginal fistula closure.

### **Materials and Methods:**

Data including age, parity, ICIQ-UI (International Consultation on Incontinence Questionnaire-urinary incontinence), ICIQ-QOL (International Consultation on Incontinence Questionnaire-quality of life), duration of leakage, fistula diameter and complications were collected before and after the intervention. Platelet rich plasma and platelet rich fibrin glue were prepared from 12 patients' own blood. De-epithelialization was performed around the fistula until a small hemorrhage occurred. Platelet rich plasma was injected

around the fistula into the tissue and platelet rich fibrin glue was interpositioned in the tract.

### **Results:**

No complications were observed during and after the injection. Mean  $\pm$  SD patient age was 39.75  $\pm$  8.45 years. At 6-month followup 11 patients considered themselves clinically cured, and transvaginal physical examination and cystography were normal. ICIQ-UI and ICIQ-QOL showed remarkable improvement in 11 patients. One patient had significant improvement but did not consent to the second injection. None of the patients had voiding dysfunction, urinary incontinence, retention or urinary tract infection.

### **Conclusions:**

Autologous platelet rich plasma injection and platelet rich fibrin glue interposition offer a safe, effective and novel minimally invasive approach for the treatment of vesicovaginal fistula which obviate the need for open surgery. We propose calling this technique the Hamidi-Shirvan method.

**Key Words:** Fibrin tissue adhesive, Platelet-rich plasma, Vesicovaginal fistula.

### Oral Presentation

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