

## **Bladder injury after transvaginal oocyte retrieval in IVF cycles. A prospective study**

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### **Introduction**

The vaginal oocyte recovery path guided by transvaginal ultrasound is widely used throughout the world. This technique is easy to learn and to perform, but can present some complication such as peritoneal bleeding, ovarian abscess or pelvic sepsis, ureterovaginal fistulas and so on. The incidence of bladder injury at the time of ovarian puncture is unknown. In the literature, there is a lack of data on their frequency. Generally not evaluate the presence of blood in the urine after the follicular puncture, so that the incidence of bladder injury is underestimated.

The aim of this study was to know the incidence of bladder injury (hematuria) resulting from ovarian puncture in IVF cycles performed in our center.

### **Materials and Methods**

This is a prospective study of 947 cycles of IVF with ovarian puncture between July 2010 and December 2011 at Unidad de Reproducción Centro Gutenberg, Málaga, Spain. All ovarian puncture was performed under general anesthesia intravenously. Immediately after the ovarian puncture, bladder catheterization was performed with Female Catheter, 3.33 mm (10 Ch) x 180 mm, Ref 031-0410, Bicakcilar Istanbul, Turkey. In the case of seeing blood in the urine, bladder washing was performed with sterile saline fluid or urinary catheter with collector was installed for 2 hours, depending on the experience of the doctor.

Statistical calculations were performed using Statistical Package for Social Sciences, version 12.0 (SPSS, Inc.; Chicago, IL).

### **Results**

There was blood in urine in 9 patients of the 947 punctures (0.9%). In the study group, the mean age of patients was 33.9 years  $\pm 7.8$  SD, with a body mass index (BMI) of 23.9 Kg/m<sup>2</sup>  $\pm 5.1$  SD. The number of punctured follicles was 15.1  $\pm 9.7$  SD. In 6 cases, bladder washing was performed and in 3 urinary catheter with collector was installed.

The 9 patients were discharged clinically asymptomatic and with clear urine at 3 hours after the ovarian puncture.

### **Conclusion**

Although bladder injury after transvaginal ultrasound-guided oocyte retrieval is a rare complication of IVF, but we should always warn the patient that this might occur. The treatment is simple and does not produce any side effects or discomfort of the patient. With more clinical cases we may know if there is an association of this complication with age, BMI, number of follicles punctured or diagnosis of the patient.

Key words: Bladder, injury, IVF, complication