

Seminoma discovered in two males undergoing successful testicular sperm extraction for intracytoplasmic sperm injection*

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Objective: To describe two cases with testicular seminoma incidentally discovered at the time of successful testicular sperm extraction for intracytoplasmic sperm injection (ICSI).

Design: Report of two cases.

Setting: Tertiary care academic center.

Patients: Two males with nonobstructive azoospermia with history of cryptorchidism.

Intervention: Testicular biopsy combined with ICSI; orchiectomy with radiotherapy.

Results: From two couples and in three different cycles, 17 of 55 (31%) metaphase II oocytes fertilized after microinjection. Eleven of these fertilized oocytes cleaved normally and all 11 were replaced. One twin pregnancy was established and was delivered successfully later. In both cases, a seminoma was discovered at the time of testicular biopsy.

Conclusions: At the time of testicular biopsy for ICSI, a specimen for histopathology must be sent to exclude the presence of seminoma in males with nonobstructive azoospermia with a history of cryptorchidism. The effectiveness of testicular sperm extraction in combination with ICSI also has been demonstrated even against the background of testicular tumor.

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With the advent of intracytoplasmic sperm injection (ICSI), testicular sperm extraction has been developed as a procedure to obtain a small number of spermatozoa from azoospermic males (1). Successful pregnancies now have been observed in couples in whom otherwise sterile men have undergone testicular sperm extraction simultaneously with ovarian stimulation of their female partners before ICSI.

However, certain categories of azoospermic men represent a subset in the infertile population who are at increased risk of developing testicular seminoma (2). We report here two males with seminoma discovered incidentally during testicular biopsy for ICSI. Both cases involving three microinjection cycles resulted in successful fertilization and ETs. Pregnancy with successful delivery was achieved in one of these cases.

CASE REPORTS

Case 1

A 42-year-old male and his 33-year-old wife had been referred to our Center for a trial of ICSI. They had no previous trials of assisted reproductive technology. He had a bilateral orchidopexy at age 9 for cryptorchidism. Male genital examination revealed very small testicles. Serum FSH level was 14.2 mIU/mL (conversion factor to SI unit, 1.00).

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of carcinoma in situ. As part of routine practice, it is advised strongly that patients suffering from carcinoma in situ and seminoma should be treated upon initial discovery. Definitive treatment of this pathology should precede any attempts for pregnancy.

Because testicular cancer can be discovered incidentally in high-risk groups during testicular biopsy for ICSI, preventive measures to ensure the integrity of surgical anatomy must be taken into account in early cancer. The value of testicular ultrasound in cancer screening as well as alternative approaches to testicular biopsy in order not to violate fascial planes may have to be considered for such high-risk patients.

Thus, the first pregnancy established after intracytoplasmic injection of sperm directly recovered from the testis of a man diagnosed incidentally to have seminoma is reported. This case is the first to our knowledge of paternity achieved by testicular sperm extraction followed by ICSI in a man with seminoma. Interestingly, the diagnosis would have been delayed were it not for the testicular biopsy carried out to attempt pregnancy. Both cases give hope to patients with testicular seminoma and non-obstructive azoospermia of fulfilling their reproduc-

tive potential by testicular sperm extraction and ICSI.

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