Testicular sperm extraction after laparoscopic orchiectomy for bilateral postpubertal intra-abdominal cryptorchidism: What chance of sperm retrieval?


Abstract
Infertility occurs in up to 54% of men with bilateral undescended testes. Orchiectomy is considered the best therapeutic approach, especially when cryptorchidism is diagnosed in adulthood, due to a high risk of malignancy. A 33-year-old man was referred with a clinical presentation of empty scrotum and an ultrasonography and magnetic resonance imaging evaluation of intra-abdominal bilateral cryptorchidism. Follicle-stimulating hormone was 23.20 IU/L, luteinising hormone was 14.10 IU/L, total testosterone was 12.1 nmol/L, and 17-beta-oestradiol was 0.16 nmol/L. Semen analysis showed absolute azoospermia. Tumour marker levels were in the normal range. Testicular volume was 4.0 ml for right testis and 4.6 ml for left testis. The patient underwent a laparoscopy bilateral orchiectomy and subsequently a testicular sperm extraction (TESE), in the purpose to finding mature spermatozoa. The biological examination revealed the presence of immature sperm cells, not efficient for a cryopreservation. The histologic analyses show a pattern of Sertoli cell-only syndrome and maturation arrest. TESE might be a good option for patients with absolute azoospermia and cryptorchidism, especially if bilateral. The procedure, performed after orchiectomy, is safe and does not have any impact on patient's health, although it is important to clarify the very low potential of sperm recovery.

KEYWORDS: azoospermia; cryptorchidism; orchiectomy; sperm retrieval; testicular sperm extraction

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