

Identification of spermatozoa in archived testicular cancer specimens: Implications for bench side sperm retrieval at orchiectomy - Abstract

Contributed by Administrator
Tuesday, 02 February 2010

Division of Urology, Department of Radiation Oncology, Centre Hospitalier de l'Université de Montréal, Montreal, Quebec, Canada.

To evaluate the patterns of spermatogenesis in the normal testicular parenchyma of primary testicular cancers and estimate the feasibility of sperm retrieval at the time of radical orchiectomy.

We reviewed the archived histologic sections of 39 consecutive patients who had undergone radical orchiectomy for primary testicular cancer at 3 university-affiliated hospitals. We examined all areas of normal (noncancerous) testicular parenchyma to evaluate the level of spermatogenesis and presence of mature spermatozoa in these sections. A minimum of 100 seminiferous tubules were scored per case. We also evaluated the epididymal tubules for the presence of mature spermatozoa. A review of the clinical chart was performed to evaluate the relationship between clinical data and histologic findings.

In nearly 40% of the cases evaluated (15/38), the predominant histologic pattern was full spermatogenesis. Mature spermatozoa were identified in nearly 80% (30/38) of the testicular histologic sections and in 50% (14/28) of the evaluable epididymal sections. Clinical stage (presence of extranodal disease) and tumor marker levels were related to the probability of identifying mature spermatozoa in the testis.

The data suggest that sperm retrieval at the time of radical orchiectomy is a feasible fertility option, with a 40% probability of recovering spermatozoa by random biopsy of the noncancerous testicular parenchyma and an 80% probability of recovering spermatozoa with a more extensive dissection. In 50% men, spermatozoa may be recovered by epididymal aspiration alone.

Written by:

Delouya G, Baazeem A, Boman JM, Violette P, Saad F, Zini A. Are you the author?

Reference:

Urology. 2009 Dec 24. Epub ahead of print.

doi:10.1016/j.urology.2009.10.039

PubMed Abstract

PMID:20035981

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