

# AB145. SOH21AS087. Preservation of fertility potential in a solitary testis with germ cell tumour and prior azoospermia by utilising on table sperm extraction

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**Background:** Currently, cryopreservation of semen prior to commencement of anti-cancer therapy is the method of choice for preserving male fertility. Success of this technique depends on the presence of sperm/spermatozoa in semen, and so is not suitable in azospermic patients. In non-germ cell tumour (GCT) patients, specialised facilities and time to treatment permits the use of testicular sperm extraction (TESE) to collect appropriate sperm/spermatozoa prior to definitive management. It becomes a significant challenge, where patients have tumour in solitary testis, bilateral testicular tumours, or significantly atrophic contralateral testis. In such situations, there is risk that fertility preservation can be overshadowed by the urgent treatment of GCT. We share our experience of Onco-TESE to preserve fertility in an azospermic patient with GCT in solitary testis.

**Methods:** Radical inguinal orchiectomy, and bench dissection of normally appearing 1/3 of the testicular area was performed. Specimen were taken to laboratory and seminiferous tubules showed sperms with grade C motility, and <1 million/ml sperms retrieved and stored in 8 vials.

**Results:** Successful fertilisation of oocyte by using intracytoplasmic sperm injection (ICSI) was achieved.

However, due to unsatisfactory embryonal growth it was decided not to proceed with clinical pregnancy and, second cycle is planned in future.

**Conclusions:** Our patient was infertile and had a large tumour in solitary testis. Successful sperm retrieval using onco-TESE and later fertilization of oocyte achieved by using spermatids. We demonstrated that in large tumours with solitary testis and very few seminiferous tubules, it is best to use this technique to preserve normal tissue and fertility.

**Keywords:** Azoospermia; cryopreservation; fertility; germ cell tumour (GCT); testicular sperm extraction (TESE)

## Acknowledgments

*Funding:* None.

## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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doi: 10.21037/map-21-ab145

**Cite this abstract as:** Khalil T, Heelan M, Nandwani G. Preservation of fertility potential in a solitary testis with germ cell tumour and prior azoospermia by utilising on table sperm extraction. *Mesentery Peritoneum* 2021;5:AB145.