

A MALE ONCO-FERTILITY PROGRAM FOR PEDIATRIC ONCOLOGY PATIENTS

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Background/introduction

- Of all male pediatric oncology patients, predominantly based on their chemotherapy treatment prospect, 25-35 % classify as high risk (HR) for infertility.
- Qualification of new patients is performed according to international guidelines on fertility care.
- In our centralised national oncological research medical center (post) pubertal boys HR for infertility are always offered cryopreservation of semen.
- In a study setting prepubertal boys with HR for infertility are offered a testicular biopsy for stemcell preservation.

AIM

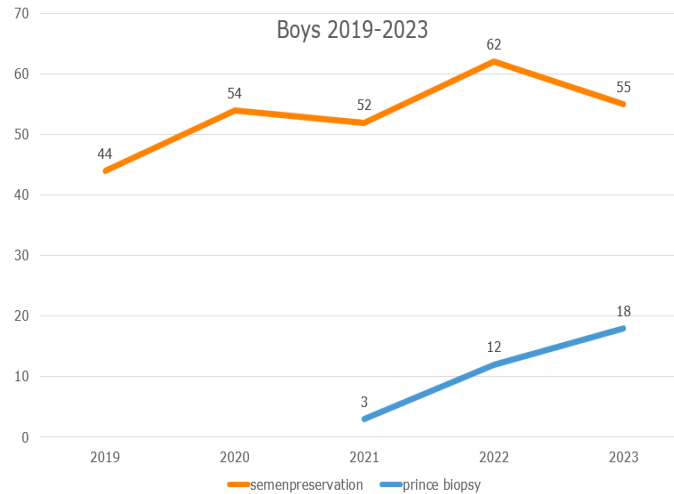
To offer fertility preservation for male pediatric oncology patients.



Methods

- All patients are informed on fertility risk by their oncologist. All HR children are additionally counseled by the oncofertility nurse practitioner and urologist.
- Cryopreservation of semen is offered before start of oncological treatment.
- A testicular biopsy is offered to prepubertal boys within a research protocol.
- 15% of biopsy material is retained for research focusing on techniques for propagation of spermatogonial stemcells in case of research consent.

Preservation boys 2019-2023, PRINCE prepubertal biopsies started in oct 2021



Results

- All HR boys and parents were counselled for fertility, unless poor prognosis.
- In 2021, 30 % of all male oncology cases were classified as HR. 44% of the patients opted for preservation. In 2022 and 2023 35% of cases were HR of which 57% (2022) 65%(2023) received preservation. Around 20% of the population was prepubertal receiving a testicular biopsy.
- Reasons for not preserving fertility were diverse.
- 99,4% prepubertal boys consented for stemcell research.

Future developments

We need research to make fertility possible from stemcells

Conclusions

- Awareness of fertility risk in male pediatric oncology patients is necessary. An active multidisciplinary onco-fertility program helps to do this.
- Pretreatment fertility preservation may be the sole option for future fertility in patients.
- For prepubertal boys, stemcell preservation is performed in a research program.

Overview of tumor groups and prepubertal testisbiopsies, 2021-2023

