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To cite this version:

Catherine Metzler-Guillemain, Ségolène Prades, Jacqueline Saïas-Magnan, Louis Bujan, Florence Eustache, et al.. Less than half of men with testicular cancer or lymphomas banked sperm before gonadotoxic treatment in France in 2018. Human Reproduction, 37 (Issue Supplement_1), pp.405-406, 2022, 10.1093/humrep/deac107.427 . hal-03934203

HAL Id: hal-03934203

https://hal.science/hal-03934203

Submitted on 11 Jan 2023

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Abstract citation ID: deac107.427

P-454 Less than half of men with testicular cancer or lymphomas banked sperm before gonadotoxic treatment in France in 2018

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Study question: What is the proportion of men treated for testicular cancer or lymphoma who banked sperm before gonadotoxic treatment in France?

Summary answer: In 2018, 41% of men with testicular cancer and 28% of men with lymphoma banked sperm before gonadotoxic treatment in France.

What is known already: Cancer treatments significantly improved survival rates in men. In Europe, the 5-year survival rate is above 90% for testicular cancer (TC) and Hodgkin lymphoma (HL), which, with Non Hodgkin Lymphoma (NHL), are the most frequent cancers in men of reproductive age. However, surgery, chemotherapy and/or radiotherapy may damage male fertility: between 15% and 30% of men remain permanently infertile after treatment. Since 2011, the French bioethics law recommends and guarantees free access to fertility preservation for all patients needing gonadotoxic treatments. Few international data are available about the rate of male cancer patients who receive sperm cryopreservation before cancer treatment.

Study design, size, duration: We analyzed the data of male cancer incidence in 2018 published by the French National Institute of Cancer (INCa), only available and latest French national data, estimated from cancer registers of selected metropolitan departments (Defossez et al. 2019). We organized a survey among the 27 metropolitan centers of the CECOS network (public centers for study and conservation of human eggs and sperm) to collect the annual number of sperm cryopreservations for TC, HL or NHL.

Participants/materials, setting, methods: We compared the number of 0-59 years-old men with TC, HL or NHL in metropolitan France (extracted from 2018 INCa data) and the number of sperm banking for TC, HL or NHL in metropolitan centers of the CECOS network.

Main results and the role of chance: INCa estimated that 38,048 new cancers were diagnosed in metropolitan France in 2018 in men aged 0-59

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years. TC accounted for 2,630 new cases and lymphomas for 3,913 new cases (943 HL and 2,970 NHL).

Twenty-six out of 27 metropolitan CECOS centers answered the survey (96% participation rate): in 2018, 1,079 men banked sperm for TC, 375 for HL and 211 for NHL.

In 2018, the fertility preservation rate in metropolitan France was 41% for TC and 28% for lymphomas (51% for HL, and 15% for NHL). The results of our national study are in accordance with Uçar et al. 2020, a monocentric study on 110 TC patients showing a 43% fertility preservation rate, but differ from those of Abdel-Razek et al. 2020, a monocentric study on 59 NHL and 26 HL patients, showing respectively 32% and 14% fertility preservation rates.

A limit of our study is to be based on estimated cancer incidence from INCa reports without stratification on age and parenthood; sperm banking activity was measured in the CECOS network, which performs 90% of French male fertility preservation (French Biomedicine Agency 2018 data). This design may induce an underestimation of cancer incidence and of sperm banking activity.

Limitations, reasons for caution: Our study did not consider patients who were informed of fertility preservation but did not want to/could not bank ejaculated sperm (azoospermia, sperm collection failure, no-show). In CECOS network, the estimated rate of such patients is 10%.

French overseas regions were not studied (lack of INCa data).

Wider implications of the findings: Our results suggest that despite the recommendations and facilities offered by the French bioethics law, the male patients' pathway for fertility preservation before cancer treatments could be improved. Further study should evaluate if this suboptimal rate of fertility preservation is homogeneous on French territory or related to postal code.

Trial registration number: Not applicable

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