LETTER TO THE EDITOR

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Oncofertility: a pending task in the Peruvian health system

Oncofertilidad: una tarea pendiente en el sistema de salud peruano

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Dear Editor. Currently, cancer continues to be an ongoing problem with great impact on the health of women of reproductive age. In 2016, 6.7 million new cases were diagnosed worldwide, with one-tenth corresponding to patients under 40 years of age. At the time of treatment, 82 000 were under 19 years of age with an overall survival of 84%[(1)]. This improvement in remission and survival has created the need and obligation to provide therapies that allow them the option of becoming mothers.

Both chemotherapy and radiotherapy generate permanent effects on the reproductive and endocrinological function of women. Alkylating agents such as cyclophosphamide and busulfan are the most gonadotoxic drugs, with marked amenorrheic effects and impairment of ovarian reserve[(2)]. Ovarian damage is also produced by direct exposure to radiation. It has been demonstrated that a dose of less than 4Gy can destroy 50% of the oocyte population[(3)]. Thus, two decades ago, the concept of 'oncofertility' emerged as a way of anticipating the impact of malignant neoplasms on the ovarian reserve and offering options to preserve the woman's reproductive future.

In 2006, the American Society of Clinical Oncology (ASCO) published the first protocols and clinical guidelines for the development of oncofertility (Table 1). Two groups of patients with different oncofertility treatment alternatives are included: postpubertal and prepubertal. In the former, embryo and mature oocyte preservation represent the 'gold standard'. However, it has disadvantages, such as prolonged treatment time and contraindication in patients with female hormone-sensitive neoplasms[(4)]. In the second, ovarian tissue cryopreservation is the most promising treatment, although its main disadvantage is the failure of implant survival and the possibility of reinstating neoplastic cells[(4)]. Despite the recent development of this specialty in reproductive medicine, the positive results are tangible in first world countries. There are even clinical guidelines and hospital units exclusively for these patients.

In view of the promising results of oncofertility and its treatment alternatives, there is a need in our country to implement advanced human reproduction units and oncological treatment protocols that include fertility preservation alternatives. As we know, the lack of allocation of a larger budget to the Ministry of Health and the lack of training of medical personnel in foreign centers work against the reproductive health of Peruvian women. Obviously, a change of direction entails an important institutional and economic effort, but it would make it possible for our patients to receive holistic and quality care.

Table I. Fertility preservation strategies[4]

	Before treatment	During treatment	After treatment
Post-pubertal patients	Embryo preservation	Ovarian transposition	Embryo transfer
	Oocyte preservation	Conservative surgery	FIV/ICSI with preserved oocytes
Pre-pubertal patients	Preservation of ovarian tissue (*)	Ovarian transposition	Ovarian tissue trasplantation (*)
	Preservation of stem cells (*)		In vitro maturation (*)

(*) Experimental therapies at the moment

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