

ITALIAN NETWORK ON FERTILITY PRESERVATION

Scaravelli, Giulia¹; Levi Setti, Paolo Emanuele^{2,3}; Fabbri, Raffaella⁴; Revelli, Alberto⁵; Cittadini, Ettore⁶; Candiani, Massimo⁷; Coccia, Elisabetta⁸; Somigliana, Edgardo⁹; Rago, Rocco¹⁰; Tomei, Francesco¹¹; Ubaldi, Filippo Maria¹²; Depalo, Raffaella¹³; Speziale, Lucia¹⁴; Spoletini, Roberta¹⁴; De Luca, Roberto¹⁴; Vigiliano, Vincenzo¹⁴

¹ART Italian National Register, National Centre for Epidemiology, Surveillance and Health Promotion, National Health Institute, Rome, Italy, ²Humanitas Clinical and Research Institute, IRCCS, Division of Gynecology and Reproductive Medicine, Rozzano (Milan), Italy, ³Department of Obstetrics, Gynecology and Reproductive Science. Yale University, School of Medicine, ⁴Gynecology & Pathophysiology of Human Reproduction Unit, S. Orsola-Malpighi Hospital, University of Bologna, Bologna, Italy, ⁵Gynecology and Obstetrics 1U, Physiopathology of Reproduction and IVF Unit, Sant'Anna Hospital, University of Torino, Italy, ⁶University of Palermo, Palermo, Italy, ⁷Head of Dept. Obstet-Gynecol & Reprod. Med San Raffaele Hospital and University, Milano, Italy, ⁸DAI-MI-AOU Careggi-University of Florence, ⁹Infertility Unit, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Italy, ¹⁰Physiopathology of Reproduction and Andrology Unit, Sandro Pertini Hospital, Rome, Italy, ¹¹Azienda Ospedaliera Santa Maria degli Angeli, 33170, Pordenone, Italy, ¹²GENERA Centre for Reproductive Medicine, Clinica Valle Giulia, via de Notaris 2B, Rome, Italy, ¹³Unit of Physiopathology of Human Reproduction and Gametes Cryopreservation, University Hospital of Bari- Consorziale Policlinico, Piazza Giulio Cesare, 11- 70124 Bari, Italy, ¹⁴ART Italian National Register, National Centre for Diseases Prevention and Health Promotion, National Health Institute, Rome, Italy

Abstract Body

Incidence of cancer in women aged 20/40 (3%) and postponing of childbearing age in Italy, has determined that many women can have cancer before having a child. As cancer treatments could impair reproductive capacity and endocrine function it is crucial to inform these patients about fertility preservation (FP) options. The Italian National Assisted Reproduction Techniques (ART) Register in 2016 sent a questionnaire to 199 Italian ART centers requesting information on fertility preservation. Number of patients counselled, treated, indications for treatment, type of treatment and outcomes during years 2000-2019 were collected. 76 (38.2%) centers responded. 29 centers answered to perform only oocytes cryopreservation (OC), 1 only ovarian tissue (OTC) and 22 both techniques. We have collected information on 2,583 patients with 21,614 frozen oocytes and 1,533 patients with OTC. More than half of OTC were performed in 4 Centers (53.1%). The 92.9% of patients were nulliparous. Mean age was 23.8 years, with 20.4% of patients being under the age of 16. Indication for treatment was represented by lymphoma (277, 34.0%), breast cancer (217, 26.7%), solid tumors (157, 19.3%) and leukemia (64, 7.9%). The majority of patients with cryopreserved oocytes were made in 21 centers (63.3%) main indications were hemato-oncological diseases (28.5%), breast cancer (46.2%), solid tumors (10.9%), ovarian pathologies (7.3%) autoimmune diseases (1.0%), other hematological diseases (0.7%) other pathologies (5.2%). Ovarian Tissue Transplantation (OTT) was performed on 22 patients. Ovarian function was restored in 19 cases (86.4%), in 4 cases a spontaneous pregnancy was obtained (1 miscarriage, 1 ectopic pregnancy, 2 baby born) and in 1 case a pregnancy after ART with one baby born, (Pregnancy Rate 26.3% and Delivery Rate 15.8%). In 79 cases of oocyte thawing 16 pregnancies (PR 20.3%), and 10 live born (DR 12.7%) were achieved.