Introduction: The efficacy of oocytes vitrification has been related in the past few years, with excellent survival rates and clinical outcome, similar to those obtained with fresh oocytes. We present our experience with this method for fertility preservation in cancer patients.

Material and Methods: Since March 2007 to October 2012, 493 oncological patients were attended for FP purposes prior to chemotherapy. Oocyte vitrification (Cryotop method) was recommended on 355 (72.4%) (n=375 cycles). 111 patients did not agree with the treatment owing to different reasons (22.6%), and 24 patients (4.8%) decided to cryopreserve ovarian tissue. Breast cancer was the most frequent tumor (67%), followed by Hodgkin lymphoma (11%). Ovarian stimulation was performed with a combination of letrozole (5mg) and 150-225 IU rFSH under a GnRH antagonist protocol for hormone-dependent cancers.

Results: Mean age was 31.9 ± 5.1 years old. A total of 4125 oocytes were retrieved (11.8 ± 8 per patient), and 2952 (71.5%) mature oocytes were vitrified (8.5 ± 6.4 per patient). Mean E2 level (383 ± 676 pg/mL) and mean total dose of gonadotropins (1460 ± 940 IU) in the letrozole group were significantly lower respect the gonadotropins group (1170 ± 1371 pg/mL; 1851 ± 979 IU rFSH) (p<0.001). Cancellation rate was 6.6%. 4 patients warmed their oocytes to attempt a pregnancy, obtaining a 6 weeks miscarriage and a healthy newborn.

Conclusion: Oocyte vitrification for fertility preservation can be recommended for people undergoing cancer treatment, what will offer the possibility of a pregnancy with their own gametes.