COMPARISON OF FOLLICLE QUALITY IN HUMAN OVARIAN TISSUE AFTER
CONVENTIONAL SLOW FREEZING (SF) OR VITRIFICATION (V) USING OVARIES
REMOVED FROM FEMALE-TO-MALE TRANSSEXUALS PATIENTS (FTMS)
A. Borras Capo¹, F. Fàbregues Gasol¹,², J.M. Calafell Pozo¹, M.D. Manau Trullas¹,², J.
Peñarrubia Alonso¹,², J. Ordi¹,², J. Balasch Cortina¹,²
¹ Hospital Clinic de Barcelona, Barcelona, Spain
² Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona, Spain

Background:
The effectiveness of vitrification (V) in comparison with conventional slow freezing (SF) for
human oocytes and embryos has been shown, but data regarding the effects on human
ovarian tissue (OT) are scanty.

Objective:
The aim of this study was to compare the effectiveness of V and SF cryopreservation
techniques analyzing morphological and viability aspects after thawing/warming tissue using
as source material from ovaries FTMs.

Materials and Methods:
Six pieces of OT from each patient were studied. Two of them were cryopreserved by SF, two
samples underwent V, and the two other pieces were studied in fresh and used as control.
Slow-freezing protocol (SF): 1.5M Ethyleneglycol and 0.1M Sucrose in PBS with 10mg/ml
HSA. Vitrification protocol (VF): VS1:7.5% EG and 7.5% DMSO in IVF culture medium. VS2:
15% EG and 20% DMSO with 0.5M Sucrose in IVF culture medium

The quality of primordial follicles (expressed as percentage of normal follicles) after
vitrification (VT) and slow-freezing (SF) of ovarian pieces were investigated. The tissue
viability was studied with Live/Dead test.

Results:
The percentage of normal primordial was similar for both freezing methods. Data about
tissue viability with Live/Dead test will be provided.