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Introduction

New In Vitro Fertilization-based techniques, such as cryopreservation using vitrification, micromanipulation of gametes and embryos and pre-implantation genetic diagnosis, have provided prospective parents with a wide range of new reproductive options. Today, ART refers not only to IVF but also to several variations tailored to patients' unique conditions.

The IVF laboratory is the heart of an assisted reproduction technology clinic, everything should be standardized and constantly kept "under control". Systems to monitor clinical and laboratorial performance have gained much importance in medical practice.

Performance indicators are objective measures for evaluating critical healthcare domains. In the setting of a clinical laboratory, quality indicators are necessary for systematically monitoring and evaluating the laboratory's contribution to patient care and they represent an important element within the quality management system.

I also studying assisted reproduction techniques from an ethical and legal regulatory point of view. In particular, I was interested in the ethical and legal aspects of pre-implantation diagnosis, a new generation technique that allows to identify the presence of chromosomal abnormalities and / or genetic pathologies in embryos, before they are transferred to the uterus. The main objection to the use of preimplantation genetic diagnosis is substantially that it is necessary to create and then select embryos on a genetic or chromosomal basis. This objection follows the debate on the status of the embryo, and by analogy that on abortion, prenatal diagnosis and research with stem cells.

Methods

This year I started a detailed data collection of all the cycles carried out in the last two years in the laboratory where I attempt my PhD, which include homologous ivf cycle, fresh donor eggs cycle, and also the pre-implantation diagnosis data. A new quality management software will allow us to analyze the progress of the assisted fertilization laboratory activity.

Abstracts e partecipazione a congressi e corsi:

- Closed system vitrification, what have we learned so far? Webinar BioCare Europe 10 Giugno 2020
- Covid-19: come si insegue e sconfigge un virus Webinar Dipartimento di Bioscienze dell'Università degli studi di Milano 28-29 Maggio 2020
- COVID-19: managing the IVF laboratory in pandemic Emergency Webinar BioCare Europe 27 Maggio 2020
- Nutrizione e PMA: approccio multidisciplinare Webinar Federazione Nutrizionisti Professionisti 12 Maggio 2020
- Recommendations for good practice for the use of time-lapse technology, Webinar Eshre 11 Maggio 2020
- Evaluation of IVF Laboratory Outcomes with Key Performance Indicators, Cooper Surgical Fertility and Genomics Education and Webinar series, 29 Aprile 2020
- Quality management in the IVF laboratory, Cooper Surgical Fertility and Genomics Education and Webinar series, 28 Aprile 2020
- Covid-19 Come riaprire i centri Pma garantendo la sicurezza a pazienti e operatori durante la convivenza con il virus Webinar S.I.R.U. 28 Aprile 2020
- Crioconservazione degli embrioni ai tempi del coronavirus Webinar Centro Demetra 27 Aprile 2020
- La percezione pubblica della scienza, Webinar Dipartimento di Bioscienze dell'Università degli studi di Milano 27-28 Aprile 2020
- Emergenza COVID-19. Impatto sulla PMA e sul laboratorio: crioconservazione di gameti ed embrioni Webinar BioCare Europe 3 Aprile 2020
- VIII Congresso Nazionale Sierr, Stay Tuned , 14-15 Febbraio 2019, Roma;
- LifeSciences Job Day, Università degli Studi di Siena 25 Novembre 2019

Pubblicazioni scientifiche

- Laura Gambera, Anita Stendardi, Camilla Ghelardi, Benedetta Fineschi, Rosamaria Aini. Effects of antioxidant treatment on seminal parameters in patients undergoing in vitro fertilization. Archivio Italiano di Urologia e Andrologia 2019; 91,3: Submitted 2019, Accepted 2019.
- Laura Gambera, Anita Stendardi, Stefano Luisi, Benedetta Fineschi, Silvana Pizzasegale, Camilla Ghelardi, Rosamaria Aini, Francesca Vellucci. 3 versus 6 oocytes in oocyte donors programs in Italy. Reproductive BioMedicine Online, Submitted 2019, Accepted 2020.