Hematologic Alterations in Patients Undergoing Controlled Ovarian Stimulation for In Vitro Fertilization: A Prospective Observational Pilot Study

Women’s Health issues in Haemostatsis and Thrombosis

Person responsible:

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Description Abstract

The goal of this project is to prospectively evaluate the alteration in coagulation profiles of patients undergoing controlled ovarian stimulation (COS) for in-vitro fertilization (IVF).

Design and methodology (Data expected to collect, sample size and statistical analysis):

Prospective, observational pilot study beginning.

The project aims for 50 patients

Demographics are recorded from patient charts. COS parameters include the following:

• total COS days,
• total gonadotropins administered (IU)
• peak estradiol (E2) level (pg/mL)
• total number of oocytes retrieved
• total number of mature oocytes
• number of 2-pronuclear (2-PN) embryos

Hematologic parameters will be assessed on the day of COS start and hCG trigger. This includes the following:

• protein S activity (%) and protein S free antigen (%)
• aPTT
• fibrinogen, factor VIII (%) and factor XIII
• APC resistance
• platelet function assay

Study population (Inclusion, exclusion, eligibility) (patient population; recruitment of participating institutions/physicians and subjects; minimum number needed; expected number):

All patients 18-40 years of age undergoing their first IVF cycle at our center are considered for inclusion.
Patients with known hypercoagulability, diminished ovarian reserve, or whose partners required surgical sperm retrieval were excluded.

**Expected timeline:**

- Enrolment started November 2015
- Due to the nature of cases, slow enrolment was expected.
- We expect to complete enrolment (n= 50) by December 2019 and analyze the data by March 2020

**Expected outcomes (ie. publications):**

- **Publication type:** Original Article
  - **Tentative title:**
    - Hematologic Alterations in Patients Undergoing Controlled Ovarian Stimulation for In Vitro Fertilization: A Prospective Observational Pilot Study
  - **Authorship list:** Desancho M, Pereira N, Stubbs R, Rosenwaks Z, Kligman I
  - **Expected timeline for submission:** April 2020

**Publication type (SSC Communication, Guidance document or original article):**

Original Article

**Description of project set/up and management, needed infrastructure and resources (summary):**

**Possible references:**