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The effectiveness of intrauterine antibiotic infusion versus oral antibiotic therapy in the treatment of chronic endometritis in patients during IVF (in vitro fertilization) procedures

Submission date
08/09/2022

Recruitment status
No longer recruiting

Registration date
14/09/2022

Overall study status
Completed

Last Edited
19/12/2022

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
This study aims to demonstrate the infectious nature of chronic endometritis (CE) and to find the best therapeutic option.

Who can participate?
Female patients, who will be treated for infertility at the CALLA Infertility Center Oradea, with an in vitro fertilization (IVF) procedure

What does the study involve?
This study involves, beside the IVF procedure, a hysteroscopy in order to visualise the uterine cavity and obtain a probe (biopsy) of the lining (mucosa) for the diagnosis of CE. If the result turns out positive, the patient can choose how the disease will be treated. After the treatment, another biopsy will be obtained to confirm the effects of the treatment.

What are the possible benefits and risks of participating?
The benefits of participation are the diagnosis of the disease and the treatment of it. The risks associated with participation include possible allergic reactions to the antibiotics.

Where is the study run from?
CALLA Infertility Center (Romania)

When is the study starting and how long is it expected to run for?
January 2020 to May 2022

Who is funding the study?
CALLA Infertility Center (Romania)

Who is the main contact?
Anca Huniadi, ancahuniadi@gmail.com

Contact information

Type(s)
Principal investigator

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Study information

Scientific Title
The effectiveness of intrauterine antibiotic infusion versus oral antibiotic therapy in the treatment of chronic endometritis in patients during IVF (in vitro fertilization) procedures

Acronym
Endo_Treat_Trial

Study objectives

To demonstrate the predominant infectious nature of chronic endometritis (CE) and to find the best therapeutic option by comparing the results of oral antibiotic therapy versus intrauterine antibiotic infusion in patients with CE undergoing IVF procedures

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 05/02/2020, Research Ethics Committee of Calla Clinic (Centrul de diagnostic și tratament al infertilității Calla, Constantin A Rosetti, No 1, 410103, Oradea, Romania; +40740 083 964; mihai_drf@yahoo.com), ref: 463/05.02.2020

Primary study design
Interventional

Study design
Prospective case-control study

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Chronic endometritis

Interventions
Chronic endometritis was diagnosed through hysteroscopy and immunohistochemistry for CD 138. Patients in both groups were tested for CE twice to evaluate the cure rate after oral combination antibiotic therapy versus intrauterine infusion of antibiotics.

Hysteroscopy was performed under intravenous general anesthesia, after the disinfection of the perineum. The uterine mucosa was visualized by crossing the cervical canal with a compact hysteroscope CAMPO TROPHYSCOPE® (Karl Storz SE & Co. KG, Germany). Entering the uterine cavity, we look for the two tubal ostia and a panoramic image of the uterus. With biopsy forceps, we draw a mucosal probe from the macroscopical modified region (polyposis endometrium, oedema or hyperemia of endometrial mucosa). If there are no visible endometrial alterations, we extract a biopsy with a catheter (Gynetics Medical Products Endometrial Curette) that is crossing under visual observation of the cervical canal without any contact with the vaginal wall.

Each patient chose the treatment after a thorough individual presentation of the method of administration, duration of treatment and side effects. In oral antibiotic treatment, we use a combination of 3 antibiotics over a 14-day period: ciprofloxacin 500 mg 2 times a day, doxycycline 100 mg 2 times a day and metronidazole 500 mg de 2 times a day. Our protocol for intrauterine antibiotic infusions includes the administration of 3 ml ciprofloxacin 200 mg/100 ml concentration every 3 days with 10 infusions in total across a 30-day period for each patient.

In the follicular phase of the menstrual cycle following antibiotic therapy, all women underwent a follow-up endometrial biopsy with CD 138 immunohistochemical examination. The purpose is to have a negative result for chronic endometritis in patients undergoing an IVF procedure.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Ciprofloxacin, doxycycline, metronidazole

Primary outcome(s)
1. Prevalence of chronic endometritis (CE) in a population that undergoes an IVF procedure measured using immunohistochemistry staining for CD 138 positivity over 1 year
2. Rate of CE resolution in patients receiving oral versus an intrauterine infusion of antibiotics measured using immunohistochemistry staining for CD 138 negativity at the control biopsy over 1 year

Key secondary outcome(s)
Correlation of the hysteroscopic aspect with the positive CD 138 immunohistochemical staining measured by the number of pathological hysteroscopies that also have positive CD 138 staining over 1 year

Completion date
01/05/2022

Eligibility

Key inclusion criteria
1. Undergoing an IVF procedure at the clinic following various IVF recommendations
2. Obtained at least two of day 5-6 blastocyst
3. Agreed to have hysteroscopic examination

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
Female

Total final enrolment
232

Key exclusion criteria
1. Acute endometritis or other acute pelvic inflammatory disease
2. Placental remnants
3. Steroidal and antibiotic treatment within 3 months prior to diagnosis
4. Endometrial cancer or atypical hyperplasia
5. Refusal of procedure (hysteroscopy), or treatment for chronic endometritis

Date of first enrolment
01/01/2021

Date of final enrolment
31/12/2021

Locations

Countries of recruitment
Romania

Study participating centre
CALLA Infertility Center Oradea
CA Rosetti, No 1
Oradea
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Sponsor information

Organisation
CALLA Infertility Center

Funder(s)

Funder type
Hospital/treatment centre

Funder Name
CALLA Infertility Center

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated and/or analysed during the current study will be published as a supplement to the subsequent results publication

IPD sharing plan summary
Published as a supplement to the results publication

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		17/12/2022	19/12/2022	Yes	No