Oil- based versus water-based contrast media for hysterosalpingography (HSG) in infertile women with unevaluated indications: a randomized controlled trial

Published: 22-07-2019
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This study has been transitioned to CTIS with ID 2024-512571-12-00 check the CTIS register for the current data. The objective of the proposed study is to assess the effectiveness and cost-effectiveness of the use of oil versus water-based contrast…

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Ovarian and fallopian tube disorders
Study type	Interventional

Summary

ID

NL-OMON52387

Source
ToetsingOnline

Brief title
H2Oil2 study

Condition

- Ovarian and fallopian tube disorders

Synonym
testing if the fallopian tubes are open, Tubal patency testing

Research involving
Human

Sponsors and support

Primary sponsor: Vrije Universiteit Medisch Centrum

Source(s) of monetary or material Support: Ministerie van OC&W,ZonMw (aangevraagd),Guerbet

Intervention

Keyword: - Anovulation, - HSG, - Lipiodol, - Tubal pathology

Outcome measures

Primary outcome

Primary outcome is conception leading to live birth within 6 months after

randomization.

Secondary outcome

- Biochemical pregnancy

- Clinical pregnancy

- Ongoing pregnancy

- Miscarriage

- Ectopic pregnancy

- Multiple pregnancy

- Complications following HSG (infection, intravastion)

- Pregnancy outcomes (f.e. birth weight)

- Pregnancy complications

- Stillbirth

- Thyroid function of the woman (before and 1 month after HSG)

- Neonatal outcomes

- Additional fertility treatments (Intra-uterine insemination, IVF, IVF/ICSI)

- Costs within 6 months after randomization

- Thyroid function of neonate (determined by heelprick)

Study description

Background summary

Staying childless, due to the inability to conceive, is one of life*s great misfortunes. Infertility, defined as the inability to conceive within 1 year of unprotected intercourse, affects 1 out of 6. Hysterosalpingography (HSG), a test to assess tubal patency, is commonly part of the fertility work-up offered to patients presenting with infertility. HSG was initially introduced as a diagnostic test to evaluate the patency of the Fallopian tubes. The past decades there have been debates of therapeutic effects of tubal flushing during HSG, especially with oil-based contrast. The latest Cochrane systematic reviews showed a non-significant difference in ongoing pregnancies in favor of tubal flushing with oil-based contrast in infertile women (Mohiyiddeen et al., 2015). To illuminate the uncertainty on the use of oil- or water-based contrast for HSG, our group conducted a large robust multicenter randomized controlled trial, the H2Oil study, in which 1.119 infertile women participated. This landmark study, published last year in the NEJM, showed significantly more ongoing pregnancies in the first 6 months following HSG with oil-based contrast as compared to HSG with waterbased contrast (RR 1.38; 95% CI, 1.17 to 1.64; P<0.001) (Dreyer et al., 2017). Publication of the study generated a world-wide renewed interest in tubal flushing and the use of oil-based contrast for fertility enhancement. However, the H2Oil study was limited by inclusion of women between 18 and 38 years of age, with a spontaneous regular menstrual cycle and at low risk for tubal pathology. As indicated above however, anovulation and tubal pathology are important causes of infertility. Furthermore, increasing female age is one of the main causes of infertility in the 21st century, with > 500 of the women undergoing IVF being over 35 years of age. As a consequence, the results of our H2Oil study are not applicable to more than 50% of the population of infertile women seen in fertility clinics in The Netherlands.

Study objective

This study has been transitioned to CTIS with ID 2024-512571-12-00 check the CTIS register for the current data.

The objective of the proposed study is to assess the effectiveness and cost-effectiveness of the use of oil versus water-based contrast medium in terms of live birth in women undergoing HSG, who:
1: have ovulation disorders or;
2: are at high risk for tubal pathology or;
3: are above 38 years of age.

Study design

Multi-center randomized controlled trial with an economic analysis alongside it.

Intervention

We will compare tubal flushing with oil-based contrast (intervention) versus tubal flushing with water-based contrast (control).

Study burden and risks

As we compare strategies (HSG with oil-based contrast versus HSG with water-based contrast) that are already applied in current practice, no additional risks or burdens are expected from the study.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)

Inclusion criteria

Women:
1: with ovulation disorders (defined as less than 8 menstrual cycles per year) or;
2: at high risk for tubal pathology (defined as a positive chlamydia infection, a pelvic inflammatory disease, known endometriosis, abdominal surgery (including tubectomy for ectopic pregnancy and appendectomy) and/or peritonitis in the medical history) or;
3: above 38 years of age

Exclusion criteria

- Iodine allergy
- Male subfertility defined as a post-wash total motile sperm count < 1 x106 spermatozoa/ml
- Not willing or able to sign the consent form
- Endocrine disorder as diabetes, hyperthyroidism or hyperprolactinaemia except for well managed hypothyroidism (TSH between 0.3 and 2.5mIU/l)

Study design

Design

Study phase:	4
Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	20-08-2019
Enrollment:	680

Type:	Actual

Medical products/devices used

Product type:	Medicine
Brand name:	Lipiodol
Generic name:	Ethyl esters of iodized fatty acids of poppy seed oil
Registration:	Yes - NL intended use
Product type:	Medicine
Brand name:	Visipaque
Generic name:	Jodixanol
Registration:	Yes - NL intended use

Ethics review

Approved WMO Date:	22-07-2019
Application type:	First submission
Review commission:	METC Amsterdam UMC
Approved WMO Date:	05-08-2019
Application type:	First submission
Review commission:	METC Amsterdam UMC
Approved WMO Date:	08-10-2019
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	24-10-2019
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	20-03-2020
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO	

Date:	18-08-2020
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	29-09-2020
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	26-05-2021
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	12-07-2021
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	09-09-2021
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	10-09-2021
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	07-11-2021
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	10-11-2021
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO Date:	29-07-2022
Application type:	Amendment
Review commission:	METC Amsterdam UMC
Approved WMO	

Date:	03-08-2022
Application type:	Amendment
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

ID: 24142
Source: Nationaal Trial Register
Title:

In other registers

Register	ID
EU-CTR	CTIS2024-512571-12-00
EudraCT	EUCTR2018-004192-12-NL
CCMO	NL66079.029.19
Other	NTR NL7925
OMON	NL-OMON24142