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Untreated Cervical Intraepithelial Neoplasia, grade 2 (CIN2), a follow-up study of young patients

Submission date
10/10/2013

Recruitment status
No longer recruiting

Registration date
08/11/2013

Overall study status
Completed

Last Edited
12/02/2025

Condition category
Urological and Genital Diseases

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

Plain English summary of protocol

Background and study aims
Human papillomavirus (HPV) causes changes in the cells lining the cervix (cervical epithelial cells), which usually are detected by cytological testing (Pap smear). Most sexually active individuals will acquire an HPV infection during their lifetime. The majority of these HPV infections clear spontaneously especially among young women, but a prolonged infection can lead to precancerous lesions of the cervix (Cervical Intraepithelial Neoplasia, CIN) or even to cervical cancer.
CIN can be treated by a loop electrosurgical excision procedure (LEEP) in an outpatient setting with local anesthesia. Previous studies have shown that LEEP can cause preterm delivery in subsequent pregnancies. LEEP, as with all surgical procedures, can also cause acute complications such as hemorrhage or infection. Because of these risks LEEPs should be avoided if possible, especially in young patients. In Finland updated treatment guidelines for CIN1 (CIN grade 1) suggest a two-year follow-up instead of immediate treatment for all patients. The most recent update of American treatment guidelines for CIN suggest a two-year follow-up for young patients with moderate CIN (CIN2), because in previous studies up to 68 % of these lesions have been found to clear spontaneously.
Currently it cannot be determined which CIN will go away spontaneously (regression) and which will progress. Genetic regulatory factors have been thought to have an impact on the process. This genetic regulation can be studied from tissue samples.
We will perform a study in which we will follow-up women aged 18 to 30 years with CIN2 instead of immediate LEEP treatment. We will look at factors associated with the regression or progression of the lesion (for example birth control method used, pregnancies) and use tissue samples to study the genetic regulatory factors.

Who can participate?
We are recruiting patients being treated at Helsinki University Central Hospitals womens clinic who are between 18 and 30 years of age and diagnosed with CIN2.

What does the study involve?
Patients in the study will be followed-up at the colposcopy clinic every six months up to two

years. A detailed patient history will be collected with a questionnaire. Every visit will include a colposcopy (a procedure in which the surface of the cervix is closely examined using a magnifying instrument called a colposcope) and cervical biopsies (a medical procedure that involves taking a small sample of tissue so that it can be examined under a microscope) will be taken when needed. Most visits will also include a cytological sample and a test for HPV genotyping. If the lesion has completely regressed (cleared) at the one-year visit, the next follow-up will be at two years from the beginning of the study. If the lesion has not regressed in two years it will be treated with LEEP. It will also be performed if the patient wishes to leave the study or the lesion has progressed. After the study period follow-up will continue as normal.

What are the possible benefits and risks of participating?
Possible benefits include avoiding unnecessary surgical treatment. The risk for progression of the lesion is considered to be low due to the careful follow-up program.

Where is the study run from?
The Women's Clinic of Helsinki University Hospital (Finland)

When is the study starting and how long is it expected to run for?
The study is recruiting patients between October 2013 and September 2016.

Who is funding the study?
Helsinki University Hospital (Finland)

Who is the main contact?
Dr Maija Jakobsson
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Contact information

Type(s)
Scientific

Contact name
Dr Pekka Nieminen

Contact details
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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

Study information

Scientific Title
Untreated CIN2 follow-up study of young patients

Acronym
Untreated CIN2

Study objectives
In our study we will follow-up 18-30-year-old women with biopsy-confirmed CIN2 at 6-month intervals for up to 24 months. The aim is to assess follow-up as an option for immediate surgical treatment in young patients who may suffer from the possible long-term consequences of loop electrosurgical excision procedure (LEEP).

Ethics approval required
Old ethics approval format

Ethics approval(s)
University of Helsinki Institutional Review Board; 24/04/2013; ref: 131/13/03/03/2013

Study design
Observational single-centre study

Primary study design
Observational

Secondary study design
Single-centre

Study setting(s)
Hospital

Study type(s)
Treatment

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet (Finnish and English)

Health condition(s) or problem(s) studied
Cervical Intraepithelial Neoplasia, grade 2

Interventions
At baseline:
1. Patient information, written consent
2. Colposcopy
3. Sample for HPV genotyping

At 6 months:
1. Colposcopy
2. Cytology
3. Punch biopsy/biopsies for methylation studies and according to clinician's judgement

At 12 months:
1. Colposcopy
2. Cytology
3. Sample for HPV genotyping
4. Punch biopsy/biopsies according to clinician's judgement

At 18 months:
1. Colposcopy
2. Cytology
3. Punch biopsy/biopsies according to clinician's judgement

At 24 months:
1. Colposcopy
2. Cytology
3. Sample for HPV genotyping
4. At least two punch biopsies

Intervention Type
Other

Phase
Not Applicable

Primary outcome measure
Histological regression to normal at 24 months follow-up

Secondary outcome measures
1. Histological regression to ≤CIN1 at 24 months
2. Histological progression to > CIN2
3. HPV negativity at 24 months

Overall study start date
14/10/2013

Completion date
28/02/2021

Eligibility

Key inclusion criteria
1. Age 18 to 30 years at first study visit
2. Biopsy-confirmed diagnosis of CIN2

Participant type(s)
Patient

Age group
Adult

Lower age limit
18 Years

Sex
Female

Target number of participants
Approximately 300

Total final enrolment
243

Key exclusion criteria
1. Cervical cancer
2. High-grade CIN (CIN3), high-grade vulvar or vaginal dysplasia (VIN 3, VAIN 3)
3. Previous LEEP of CIN3
4. A very large or not completely visible CIN2 lesion in colposcopy
5. Pregnancy or breastfeeding
6. Human immunodeficiency virus (HIV)-positive
7. Immunosuppressive medication
8. Language difficulties (patients who do not speak sufficient Finnish or English)

Date of first enrolment
14/10/2013

Date of final enrolment
31/12/2018

Locations

Countries of recruitment
Finland

Study participating centre
Helsinki University Hospital Women's Clinic
Helsinki
Finland
00290

Sponsor information

Organisation

Helsinki University Central Hospital (Finland)

Sponsor details
c/o Dr. Pekka Nieminen
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BO 610
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Sponsor type
Hospital/treatment centre

Website
http://www.hus.fi

ROR
https://ror.org/02e8hzf44

Funder(s)

Funder type
Hospital/treatment centre

Funder Name
Helsinki University Central Hospital (Finland)

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other publications	DNA methylation investigation	10/06/2020	06/10/2020	Yes	No
Results article		10/02/2025	12/02/2025	Yes	No