PORTEC-2: Postoperative Radiation Therapy for Endometrial Carcinoma – a multicenter randomised phase III trial comparing external beam radiation and vaginal brachytherapy.

Gepubliceerd: 09-09-2005 Laatst bijgewerkt: 18-08-2022

Vaginal brachytherapy, as compared to external beam pelvic radiotherapy, will provide equal 5-year vaginal control and overall survival, with less treatment related morbidity and better quality of life.

Ethische beoordeling	Positief advies
Status	Werving gestopt
Type aandoening	-
Onderzoekstype	Interventie onderzoek

Samenvatting

ID

NL-OMON25442

Bron
NTR

Verkorte titel
PORTEC-2

Aandoening

Endometrial carcinoma; indication for postoperative radiation therapy.

Ondersteuning

Primaire sponsor: Leiden University Medical Center,
Department of Clinical Oncology
Overige ondersteuning: Dutch Cancer Society (KWF Kankerbestrijding): CKTO 2001-04

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

5-year actuarial vaginal relapse.

Toelichting onderzoek

Achtergrond van het onderzoek

Background and aim of the study:

The PORTEC-1 trial has demonstrated that postoperative external beam radiotherapy for stage 1 endometrial cancer significantly increases local control (from 85 to 96%), but has no impact on survival. Salvage therapy for isolated vaginal recurrence, the main site of recurrence in the control group, was effective with a complete remission rate of 89% and actuarial 5-year survival of 65% in the control group. The use of postoperative RT should therefore be limited to the group of patients at sufficiently high risk of locoregional recurrence (15% or over) to warrant the risk of treatment associated morbidity in order to maximize initial local control and relapse-free survival.
It was concluded that RT should be limited to those subgroups of stage 1 endometrial cancer with at least 2 of the following 3 major risk factors: grade 3, age 60 and over, outer 50% myometrial invasion.

For these subgroups (2 of the 3 risk factors) combined, the rate of locoregional relapse in the control arm of the PORTEC trial was 19%. Omitting RT in these subgroups would leave these patients at a significant risk of vaginal and pelvic relapse.

Recent studies have reported that vaginal brachytherapy provides high vaginal control rates (95% and over), comparable to external beam pelvic radiotherapy, with very low morbidity rates. These studies included, however, mainly low-risk patients.
The PORTEC –2 trial was designed to investigate whether vaginal brachytherapy may be used in intermediate-risk endometrial carcinoma patients to obtain equally high vaginal control and 5-year survival rates with less side effects and better quality of life.

Population, study design, intervention:

Patients with endometrial carcinoma stages IB-2A will after surgery be randomized to receive

postoperative external beam pelvic radiotherapy (46 Gy in 2 Gy fractions in 5 weeks; standard arm) or vaginal brachytherapy (HDR 21 Gy in 3 fractions of 7 Gy, each 1 week apart; or MDR 28 Gy or LDR 30 Gy in one session; study arm). Patients are stratified by FIGO stage (IB, IC or 2A), RT center, brachytherapy dose rate (LDR or HDR), and patient age (below 60 or 60 and over) using a minimisation procedure.

Endpoints and statistics:

The primary study endpoint is 5-year actuarial vaginal relapse. Secondary endpoints are 5-year overall survival and cancer-specific survival; quality of life and treatment related morbidity; 5-year rates of pelvic and distant relapse; and local control and survival after relapse.

To estimate the difference in vaginal relapse rate (competing risk) with sufficient precision (based on a rate of vaginal relapse of 2% in the ERT group) 200 patients will be recruited in each treatment arm.
The study has sufficient power (>80%) for detecting a difference of 6% (8% vs 2%) or more in vaginal relapse between the study arms.

The repeated measures of the QLQ-C30 functional and symptom scales and of the global health index will be analysed to evaluate the differences between the treatment groups with respect to quality of life during treatment and up to 5 years thereafter.

Side studies:

Tumour samples will be collected and saved in a dedicated tissue bank for immunohistochemical studies and/or molecular genetic studies studies of new prognostic factors and factors predicting response to radiotherapy.

Doel van het onderzoek

Vaginal brachytherapy, as compared to external beam pelvic radiotherapy, will provide equal 5-year vaginal control and overall survival, with less treatment related morbidity and better quality of life.

Onderzoeksopzet

N/A

Onderzoeksproduct en/of interventie

Patients are randomized to receive external beam pelvic radiotherapy (standard arm: 46 Gy in 2 Gy fractions in 5 weeks) or vaginal brachytherapy (study arm: HDR 21 Gy in 3 fractions of 7 Gy, each 1 week apart; or MDR 28 Gy in one session; or LDR 30 Gy in one session).

Contactpersonen

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

1. Endometrial carcinoma, with one of the following combinations of postoperative FIGO stage and age:

a. Stage 1C grade 1 or 2 and age 60 or over;

b. Stage 1B grade 3 and age 60 or over;

c. Stage 2A, any age, grade 1 or 2;

d. Stage 2A, any age, grade 3 with < ½ myometrial invasion;

2. Surgery consisted of a total abdominal hysterectomy and bilateral salpingo-oophorectomy (TAH-BSO);

3. Histologically proven adenocarcinoma; grade of differentiation determined according to the FIGO/AFIP criteria; depth of myometrial invasion documented;

4. WHO-performance status 0-2;

5. Written informed consent.

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

1. One of the following combinations of FIGO stage and age:

a. Stage 2B, 3 or 4;

b. Stage 2A and grade 3 with 50% or greater myometrial invasion;

c. Stage IA or IB grade 1 or 2;

d. Stage 1B grade 3 and age below 60;

e. Stage 1C grade 1 or 2 and age below 60;

f. Stage IC grade 3, any age;

2. Histological subtypes papillary serous carcinoma or clear cell carcinoma;

3. Routine staging lymphadenectomy;

4. Interval between the operation and start of radiotherapy exceeding 8 weeks;

5. History of any previous malignancy, except for basal cell carcinoma of the skin;

6. Previous pelvic radiotherapy;

7. Hormonal therapy or chemotherapy for this tumour;

8. Prior diagnosis of Crohn’s disease or ulcerative colitis.

Onderzoeksopzet

Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blindering:	Open / niet geblindeerd
Controle:	Geneesmiddel

Deelname

Nederland

Status:	Werving gestopt
(Verwachte) startdatum:	01-06-2002
Aantal proefpersonen:	400
Type:	Werkelijke startdatum

Voornemen beschikbaar stellen Individuele Patiënten Data (IPD)

Wordt de data na het onderzoek gedeeld: Nog niet bepaald

Toelichting
IPD will be shared after a scientific request and approval by the study group (e.g., for meta-analysis)

Ethische beoordeling

Positief advies

Datum:	09-09-2005
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL294
NTR-old	NTR332
Ander register	METC Leiden-Den Haag-Delft : METC LUMC P01.146
ISRCTN	ISRCTN16228756

Resultaten

Samenvatting resultaten
Wortman BG, Creutzberg CL, Putter H, et al:
Ten-year results of the PORTEC-2 trial for high-intermediate risk endometrial carcinoma: improving patient selection for adjuvant therapy.
Br J Cancer. 2018 Oct;119(9):1067-1074. doi: 10.1038/s41416-018-0310-8. Epub 2018 Oct 25.

Nout RA, Putter H, Jurgenliemk-Schulz IM, et al:
Five-year quality of life of endometrial cancer patients treated in the randomised Post Operative Radiation Therapy in Endometrial Cancer (PORTEC-2) trial and comparison with norm data.
Eur J Cancer.2012 Jul;48(11):1638-48. doi: 10.1016/j.ejca.2011.11.014. Epub 2011 Dec 14

Nout RA, Smit VTHB, Putter H, et al:
Vaginal brachytherapy versus pelvic external beam radiotherapy for patients with endometrial carcinoma of high-intermediate risk (PORTEC-2): an open-label, non-inferiority, randomised trial.
Lancet 375:816-823, 2010.

Nout RA, Putter H, Jurgenliemk-Schulz IM, et al:
Quality of life after pelvic radiotherapy or vaginal brachytherapy for endometrial cancer: first results of the randomized PORTEC-2 trial.
J Clin Oncol 27:3547-3556, 2009.