

# Endometrial Cancer

## Studies on recurrences, complications and preoperative diagnostics

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i Hörsal Arvid Carlsson, Academicum, Medicinaregatan 3, den 31 mars, klockan 09:00

av Åsa Åkesson

Fakultetsopponent:

Professor Frederic Amant

Department of Oncology, KU Leuven, Belgium and Department of Gynecological oncology, Netherlands Cancer Institute, Amsterdam, the Netherlands

**Avhandlingen baseras på följande delarbeten:**

- I. Åkesson Å, Adok C and Dahm-Kähler P **Recurrence and survival in endometrioid endometrial cancer - A population-based cohort study** *Gynecol Oncol.* 2023 Jan;168:127-134
- II. Åkesson Å, Adok C and Dahm-Kähler P **Increased survival in non-endometrioid endometrial cancer after introducing lymphadenectomy and tailoring radiotherapy - A population-based cohort study** *Eur J Cancer* 2022 Jul;169:54-63
- III. Åkesson Å, Wolmesjö N, Adok C, Milsom I and Dahm-Kähler P **Lymphadenectomy, obesity and open surgery are associated with surgical complications in endometrial cancer** *Eur J Surg Oncol* 2021 Nov ;47:2907 – 2914
- IV. Palmér M\*, Åkesson Å\*, Marcickiewicz J, Blank E, Hogström L, Torle M, Mateoiu C, Dahm-Kähler P, Leonhardt H **Accuracy of transvaginal ultrasound versus MRI in the PreOperative Diagnostics of low-grade Endometrial Cancer (PODEC) study: A prospective multicenter study** *Clin Radiol.* 2023 Jan;78(1):70-79 \*=joint first author

**SAHLGRENSKA AKADEMIN  
INSTITUTIONEN FÖR KLINISKA VETENSKAPER**



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## Studies on recurrences, complications and preoperative diagnostics

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### Abstract

**Background** Primary treatment for endometrial cancer (EC) is surgical with hysterectomy and bilateral salpingo-oophorectomy and added lymphadenectomy for staging.

**Aim** The aim of this thesis was to study recurrence, survival and surgical complications in a population-based cohort and to assess the introduction of the first national guidelines (NGEC). A second aim was to evaluate preoperative risk classification with transvaginal ultrasound (TVUS) and magnetic resonance imaging (MRI) in low-grade endometrioid EC.

**Methods** In Paper I-III, data from the Swedish Quality Register for Gynecological Cancer was retrieved and completed with medical records reviews. Survival and regression analyses for risk factors were performed. Paper IV was a prospective multicenter study in the WSHCR including patients with low-grade EC. Myometrial infiltration (MI) and cervical stroma invasion (CSI) were assessed with both TVUS and MRI and the methods were analyzed for diagnostic accuracy and compared.

**Results** The recurrence rate was 8.3% in endometrioid (Paper I) and 29% in non-endometrioid EC (Paper II). The total 5-year DFS was 83.9% and 61.9% for endometrioid and non-endometrioid EC respectively. If no recurrence occurred, the 5-year OS was 91.9% in endometrioid and 88.5% in non-endometrioid EC. The OS increased from 57.3% to 72.0% after the implementation of NGEC (Paper II). Surgical Clavien-Dindo complications grade >II occurred in 19.7% and surgical technique, obesity and lymph node dissection, were found to be independent risk factors (Paper III). In Paper IV, MRI had a higher accuracy for deep MI than TVUS, but no difference in sensitivity

**Conclusions** The survival was excellent when no recurrence occurred, in both endometrioid and non-endometrioid EC. A significant improvement in survival was seen in non-endometrioid EC after implementation of NGEC with lymph node staging, despite less adjuvant radiotherapy administered. For the assessment of deep MI, MRI had a higher accuracy than TVUS. The sensitivity of TVUS performed by gynecologists was evaluated as acceptable and did not differ from MRI.

**Keywords:** endometrial cancer, lymphadenectomy, recurrence, survival, surgical complications, diagnostic accuracy

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