

High Incidence of Cardiovascular
Disease in Curatively Treated
Patients with Esophageal Cancer – A
Registry-Based Cohort Study

Mette Marie Astrup Søndergaard, MD, PhD

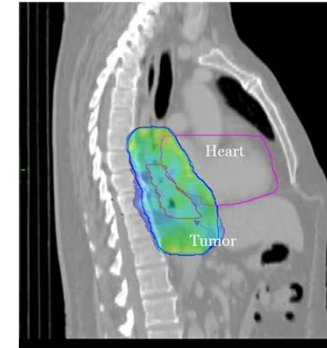
Department of Cardiology, Aarhus University Hospital

Is cardiotoxicity relevant in patients with esophageal cancer?

Treatment: Multimodal (Chemotherapy, radiotherapy, surgery)

Aim To determine the incidence of cardiac disease and all-cause mortality in patients with EC

Material and study design – Danish health registries



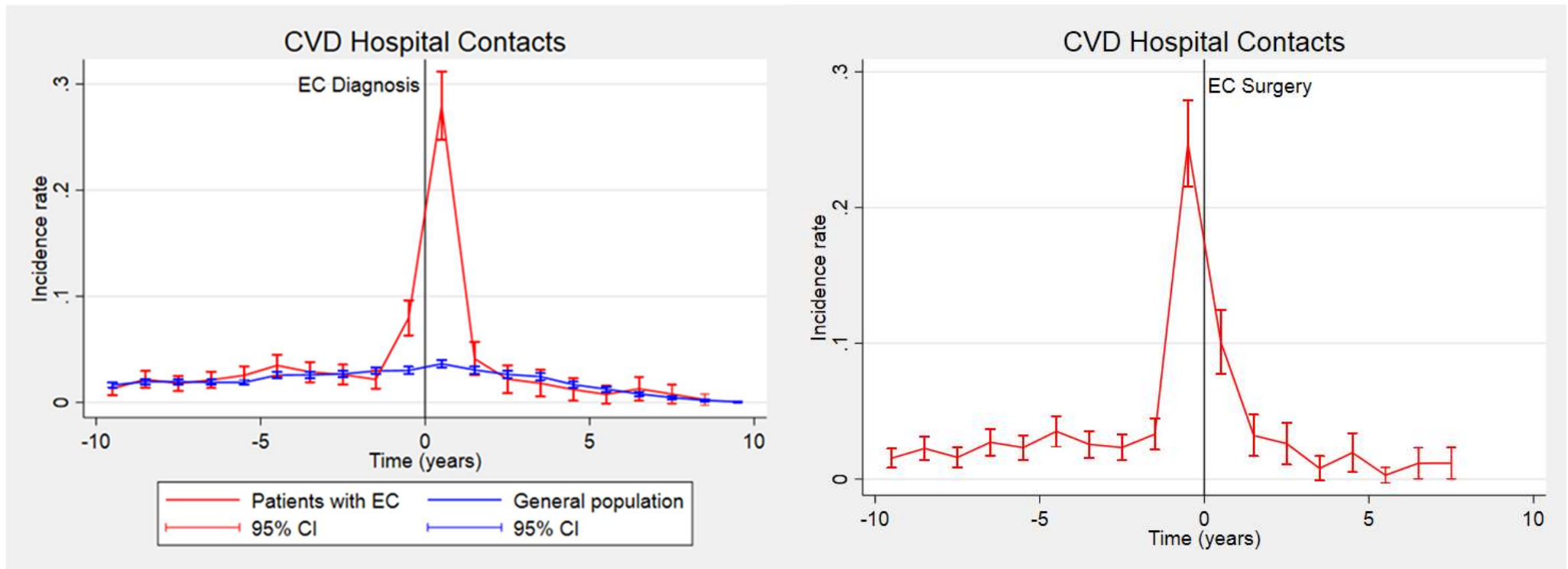
Danish EsophagoGastric Cancer Database (DEGC) 2008-2018
1,525 Patients with EC treated with curative intent

↕ Match 1:10 – Sex, age and Charlson Comorbidity Index (CCI)

Danish National Patient Registry (DNPR) 2008-2018
15,250 Individuals from the general population
Comorbidities, cardiac hospital contacts → Endpoint (In hospital or outpatient cardiac contacts)

Results

Incidence rate of CVD hospital contacts



Results

Cause-specific hazard ratios

- **Atrial fibrillation**
HR **4.51** (95% CI: 3.73-5.45)
- **Ischemic heart disease**
HR **2.62** (95% CI: 2.07-3.32)
- **Venous thromboembolism**
HR **14.71** (95% CI: 10.2 to 21.2)
- Heart failure
HR **1.27** (95% CI: 0.78-2.08)
- Perimyocarditis
HR **2.16** (95% CI: 0.90-5.18)

"The cured cancer patient of today does not want to be the heart disease patient of tomorrow."



Acknowledgment

Study group members: Steen Hvitfeldt
Poulsen

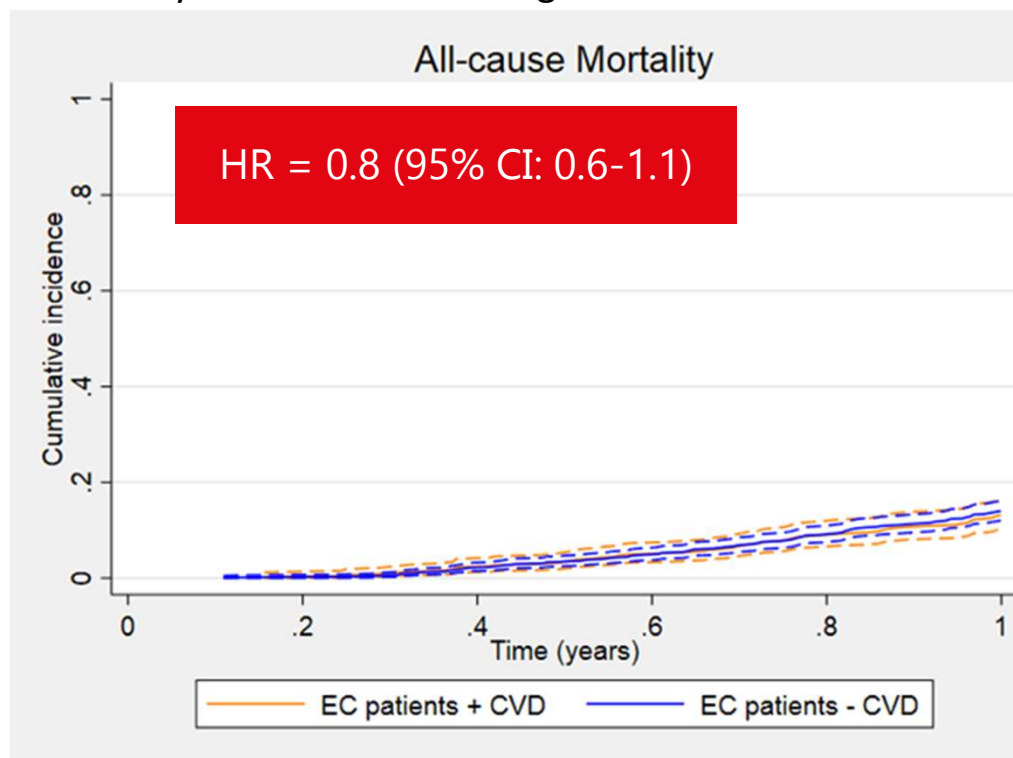
Marianne Nordsmark
Kirsten Melgaard Nielsen
Jan Brink Valentin
Søren Paaske Johnsen

Founding: Danish Cancer Society
Slagtermester Max Wørzners Mindelegat
Tømrermester Jørgen Holm og hustru Elisa F. Hansens Mindelegat
Radiumstationens forskningsfond

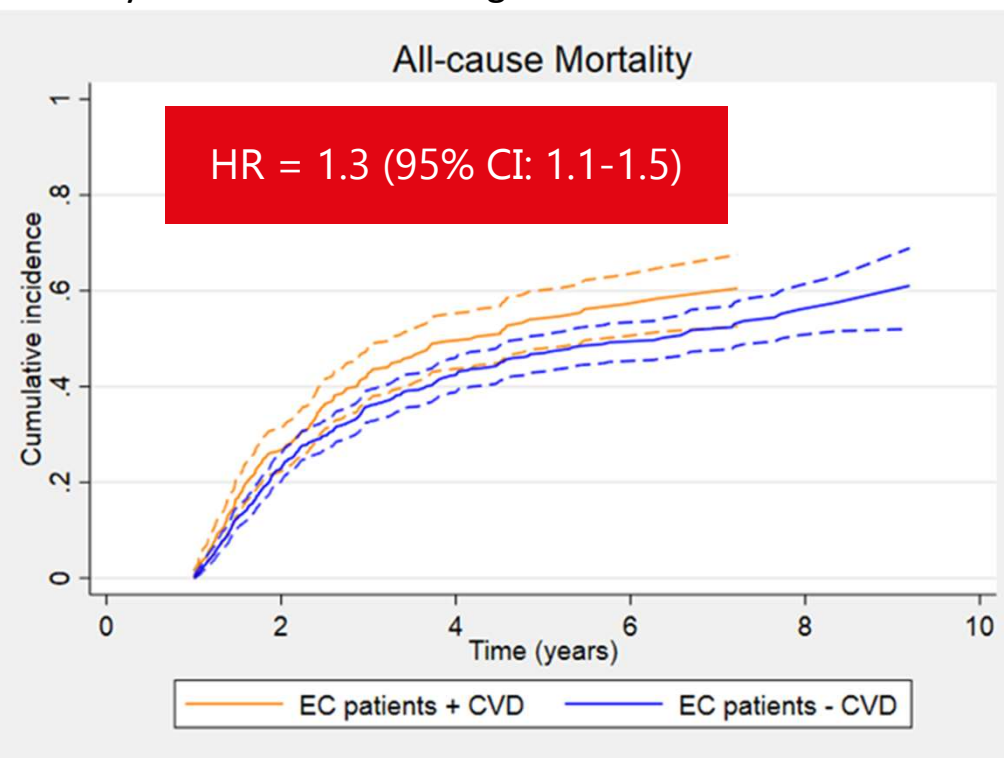
Results

Cumulative incidence of all-cause mortality – EC patients + CVD vs. EC patients - CVD

0-1 years after the EC diagnoses



1-10 years after the EC diagnoses



Perspectives

- Prescreening for CVD and optimizing CVD – Practice-changing AUH
- Prophylactic CVD treatment strategies
- NOAK – VTE – Atrial fibrillation - (IHD)
- Beta-blockers – IHD – Atrial fibrillation

- Ongoing study on radiation doses to heart and substructures and relation to cardiac events