Long-term outcomes after colorectal surgery in patients with ulcerative colitis-associated colorectal cancer versus sporadic colorectal cancer.

A propensity score matched retrospective cohort study with systematic review and meta-analysis.

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BACKGROUND

Patients with **ulcerative colitis (UC)** have an increased risk of developing **colorectal cancer (CRC)**, especially those with a long duration of disease, early onset, extensive colitis, concomitant primary sclerosing cholangitis & family history of CRC. Carcinogenesis in ulcerative colitis associated CRC **(UC-CRC)** differs from sporadic CRC **(s-CRC)**, but it is still unclear whether this also results in a difference in long-term outcomes. We aimed to compare disease-free survival, recurrence-free survival and all-cause mortality between UC-CRC and s-CRC after surgery with curative intent in the Danish population, using propensity score matching. A systematic review and meta-analysis were conducted to examine the existing literature.

METHODS

CRC patients undergoing surgery with **curative** intent **2004-2016** in Denmark

- **Patients with UC and CRC**
- **Patients with s-CRC**

Propensity score matching
Age, UICC stage
Gender, tumor localization,
Charlson score, year of surgery, type of surgery

Follow-up
31.12.2016

Outcomes
Disease-free survival (DFS) – time to recurrence or death, censored for new primary tumor/secondary malignancy
Recurrence-free survival (RFS) – time to recurrence, censored for death
All-cause mortality (ACM) – time to death

Systematic review and meta-analysis

(registered in PROSPERO database: CRD42019137723)

3 databases screened for **6,562** articles

6 studies included

N=168.950

CONCLUSION

We found **no difference** in long-term oncological outcomes after surgery between patients with ulcerative colitis-associated and sporadic colorectal cancer. Optimal monitoring and existing medical treatment of patients with UC and its impact on colorectal cancer warrants future studies, in order to explore, if prognosis of this relatively young patient group, can be improved even more.

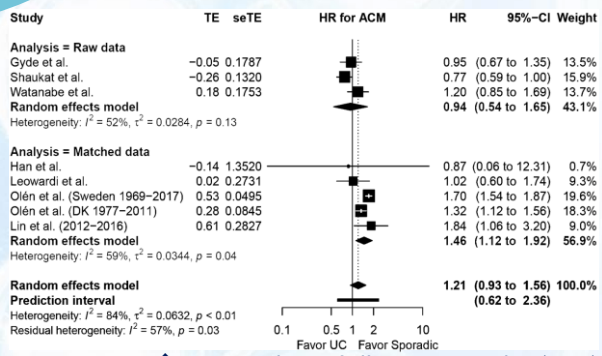
RESULTS

27,847 patients with CRC

1:5 propensity score matching

- **222 patients with UC and CRC**
- **1110 patients with sporadic CRC**

No difference in survival or mortality
DFS: HR 1.06 (95% CI 0.85-1.32)
RFS: HR 1.14 (95% CI 0.86-1.53)
ACM: HR 1.15 (95% CI 0.89-1.48)



↑ Meta-analysis of all-cause mortality (ACM)

(TE = Estimated treatment effect, seTE = Standard error of treatment estimate, HR = Hazard ratio, CI = Confidence interval)

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