

The Incidence and Disease Course of Perianal Disease in Paediatric-Onset Crohn's Disease: A Nationwide Study

Annika Ström^{1,2}, Sabine Jansson^{1,2}, Mads Damsgaard Wewer^{2,3}, Johan Burisch^{2,3,4}, Mikkel Malham^{1,2,5,6}, Vibeke Wewer^{1,2,4}

¹Department of Paediatric and Adolescent Medicine, Copenhagen University Hospital, Amager and Hvidovre Hospital, Hvidovre, Denmark, ²Copenhagen Center for Inflammatory Bowel Disease in Children, Adolescents, and Adults, Amager and Hvidovre Hospital, University of Copenhagen, Hvidovre, Denmark, ³Gastro Unit, Medical Division, Copenhagen University Hospital, Amager and Hvidovre, Hvidovre, Denmark, ⁴Department of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark, ⁵Department of Paediatric Gastroenterology and Nutrition, Royal Hospital for Children and Young People, Edinburgh, United Kingdom, ⁶Copenhagen Health Complexity Center, Department of Public Health, University of Copenhagen, Copenhagen, Denmark. Contact: annikaeva.strom@gmail.com

REGION

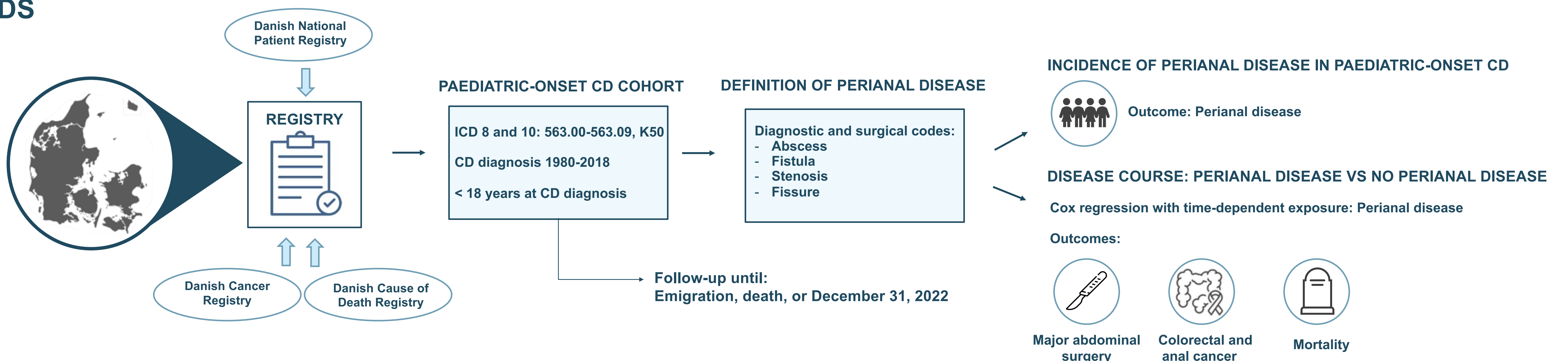
BACKGROUND AND AIM

Perianal Crohn's disease (CD) is characterised by fistulae and/or abscesses in the anal region and leads to significant morbidity. We aimed to estimate the incidence and describe the disease course of perianal disease in paediatric-onset CD patients (<18 years at CD diagnosis) in a Danish population-based cohort in the period 1980 to 2022.

CONCLUSION

The incidence of perianal disease was 29/1,000 person-years, corresponding to 45% after 30 years. Patients with perianal CD were more likely to require major abdominal surgery, including stoma surgery, and had a higher risk of mortality compared to patients without perianal CD. Our study underlines the severity of perianal disease in paediatric-onset CD.

METHODS



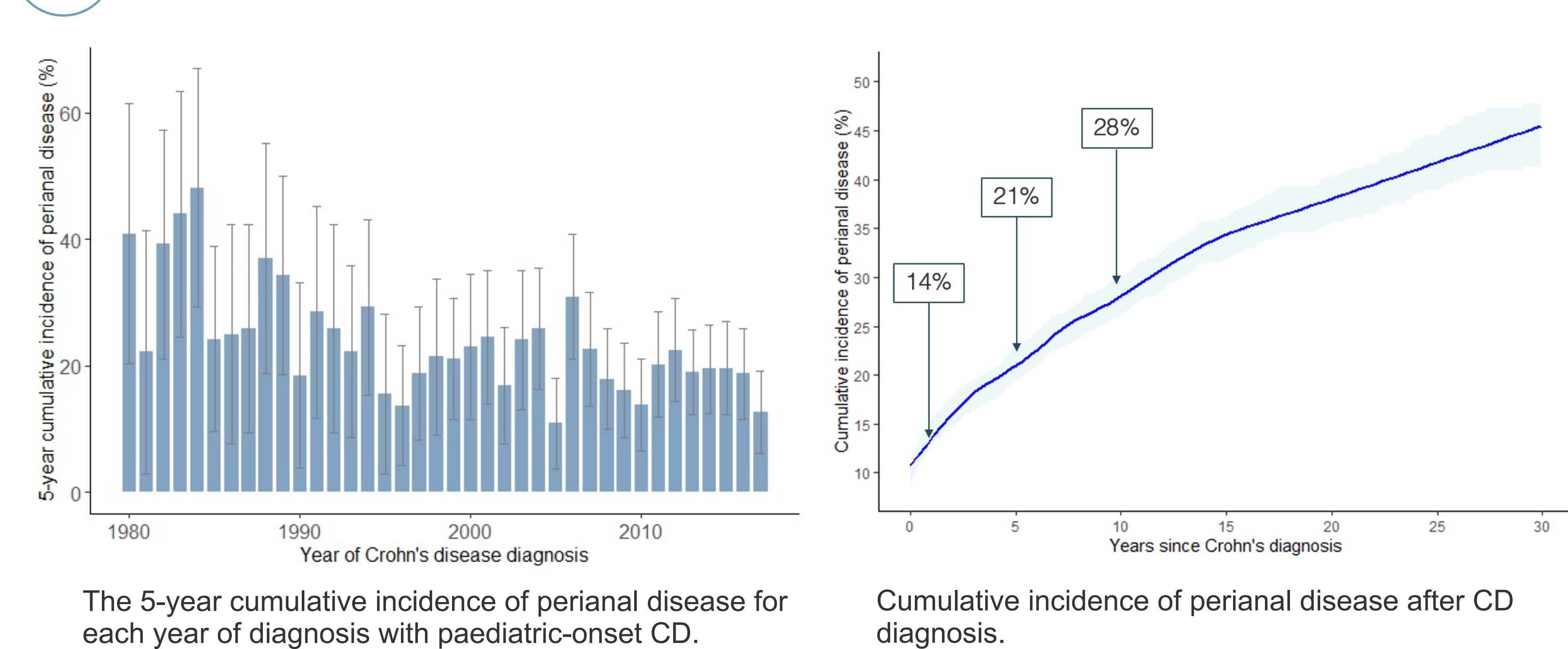
RESULTS

PATIENT CHARACTERISTICS

	CD with perianal disease	CD without perianal disease
Patients (n, %)	769 (32.6)	1587 (67.4)
Male	427 (55.5)	778 (49.0)
Median age at CD diagnosis (y [IQR])	15.2 (12.8–16.8)	15.0 (12.7–16.8)
Median age at perianal disease (y [IQR])	17.6 (14.6–22.9)	–
Median age at first perianal surgery (y, IQR)	17.9 (15.2–23.2)	–
Median follow-up time (y [IQR])	18.5 (11.5–28.0)	12.3 (7.7–19.8)
Perianal disease presentation (n, %)		
Abscess	460 (59.8)	–
Fistula	399 (51.9)	–
Stenosis	139 (18.1)	–
Fissure	183 (23.8)	–
Perianal surgery (n, %)		
Abscess surgery	375 (48.8)	–
Fistula surgery	259 (33.7)	–
Stenosis surgery	124 (16.1)	–

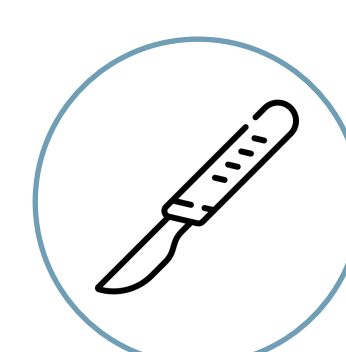
INCIDENCE OF PERIANAL DISEASE IN PAEDIATRIC-ONSET CD

Incidence rate 29 patients per 1,000 person-years, 1980–2022



DISEASE COURSE: PATIENTS WITH PERIANAL DISEASE VS PATIENTS WITHOUT PERIANAL DISEASE

	Outcomes in CD with perianal disease	Outcomes in CD without perianal disease	Adjusted HR
Surgeries			
Major abdominal surgery	452	513	1.5
Small bowel resection	181	134	1.5
Ileocecal resection	170	317	1.5
Colectomy	301	193	1.5
Stoma formation	308	147	2.8
Cancer			
Colorectal and anal	6	8	0.8
Mortality			
All-cause mortality	35	33	1.5



Major abdominal surgery
aHR 1.5 (95% CI: 1.3–1.8)



Colorectal and anal cancer
aHR 0.8 (95% CI: 0.2–2.7)



Stoma formation
aHR 2.8 (95% CI: 2.3–3.4)



Mortality
aHR 1.5 (95% CI: 0.9–2.7)

Risks of major abdominal surgeries, cancer, and mortality. Hazard ratios (HR) are adjusted for sex, family income, and year of CD diagnosis.

