



Increased advanced neoplasia risk after recurrent low-grade dysplasia in Inflammatory Bowel Disease patients

A nationwide cohort study

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Disclosure of Conflicts of Interest:

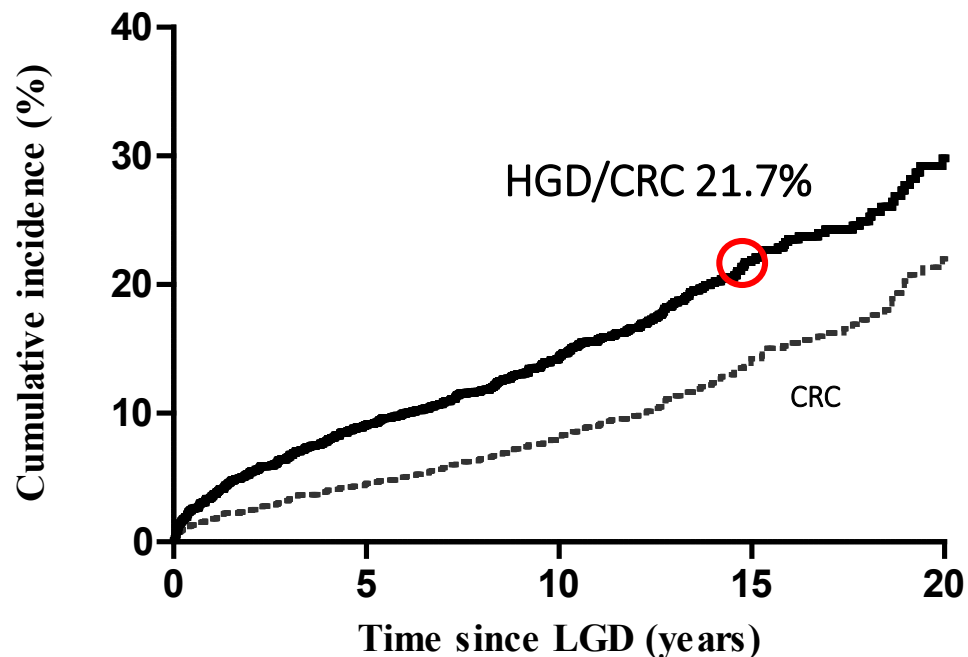
- Conflicts of interest : none

Background

- What is known
 - Increased advanced neoplasia (HGD/CRC) risk after LGD in IBD
 - Intensified surveillance

- What is unknown

- Impact of recurrent LGD on CRC risk
- The impact of a neoplasia-free period after initial LGD on CRC risk



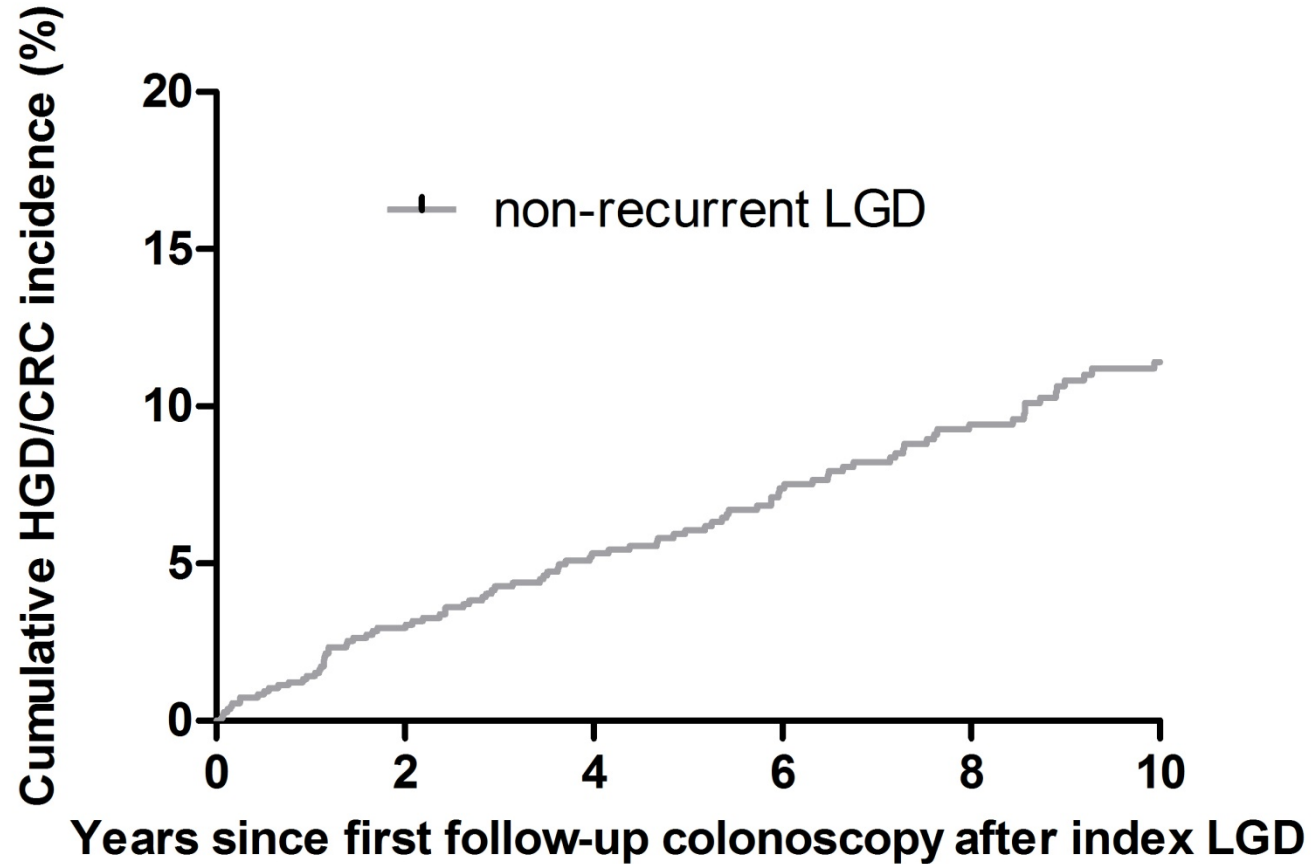
Aims

- 1) To assess whether recurrent LGD at first follow-up colonoscopy after initial LGD is a risk factor for advanced neoplasia in IBD patients
- 2) To determine how the duration of a neoplasia-free time period after initial LGD impacts the advanced neoplasia risk in IBD patients with LGD

Methods

- Nationwide retrospective cohort
- Search in Dutch pathology database (PALGA):
 - IBD
 - Dysplasia & CRC
 - Colon
- Inclusion:
all IBD patients with colonic LGD between 1991-2005
Systematic follow-up until January 2016
- Recurrent LGD ↔ Non-recurrent LGD

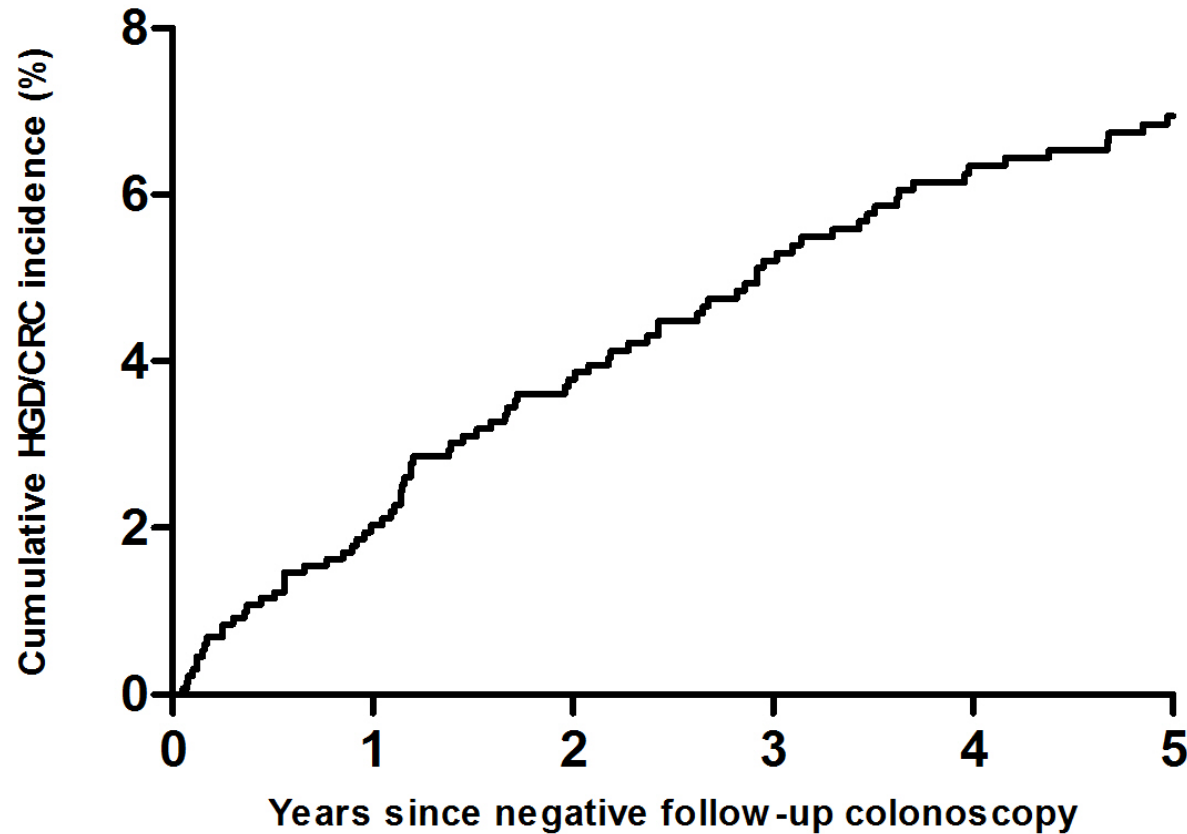
Is recurrent LGD a risk factor for AN?



HR 1.8, p=0.001

| | | | | | | |
|---------------|------|-----|-----|-----|-----|-----|
| recurrent | 238 | 198 | 176 | 149 | 114 | 82 |
| non-recurrent | 1087 | 918 | 795 | 681 | 569 | 417 |

Impact of negative follow-up colonoscopies



First follow-up colonoscopy
neoplasia-free

2-3 years neoplasia-free
3-4 years neoplasia-free
4-5 years neoplasia-free

<3 vs >3 years p=0.023

Conclusions

- 1) IBD patients with recurrent LGD are at increased advanced neoplasia risk compared to patients with non-recurrent LGD (HR 1.8)
- 2) IBD patients with a negative colonoscopy after initial LGD show a decreased advanced neoplasia risk. A neoplasia-free period > 3 years is associated with a further decreased advanced neoplasia risk.



European
Crohn's and Colitis
Organisation

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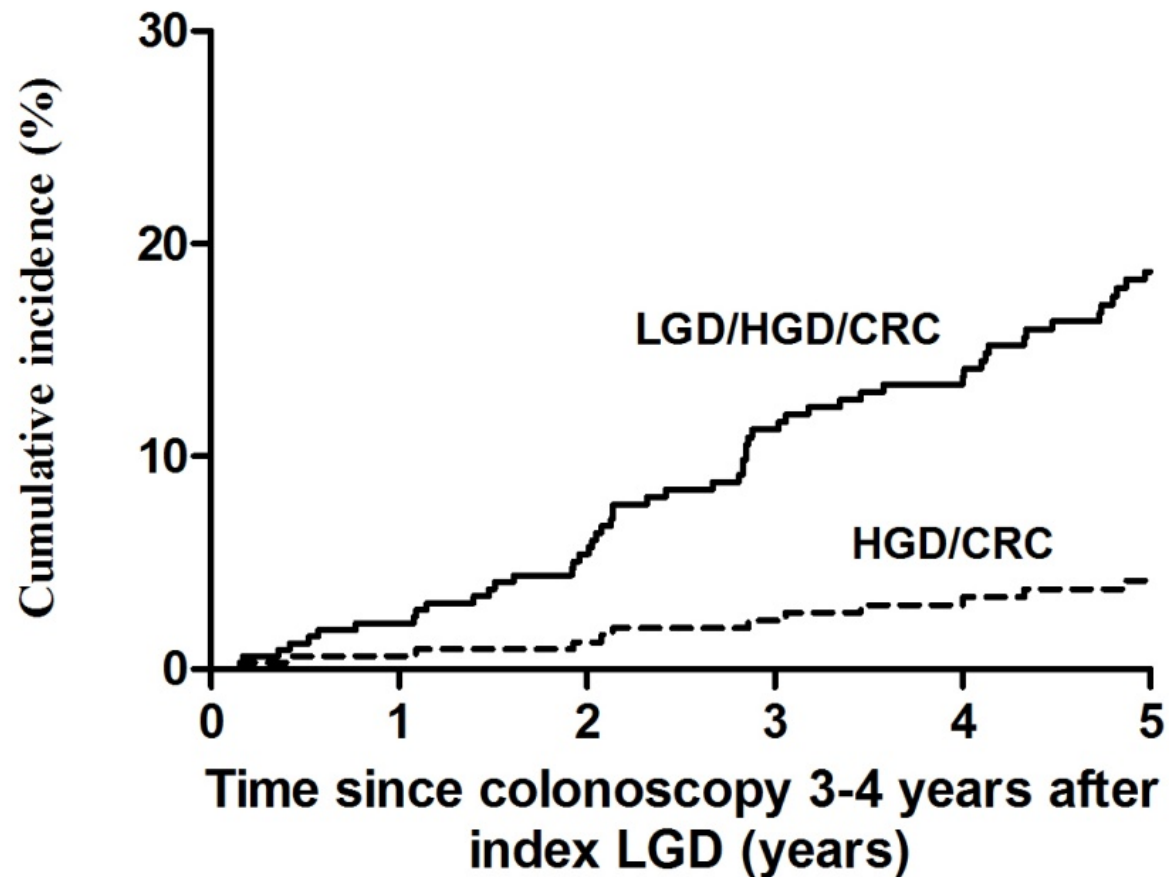
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Back-up: number of negative colonoscopies

- > 3 years neoplasia-free:
No association with number of previous negative colonoscopies ($p=0.29$)

Neoplasia risk in patients >3 years neoplasia-free



**Negative 1st colonoscopy
after index LGD**

Total LGD IBD patients
N=1869

Exclusion

- 544 no colonoscopy 0-3 years after index LGD
- 238 with LGD at first follow-up

Patients with negative first colonoscopy after index LGD

N=1087

**Incidence rate HGD/CRC:
14.0**

Follow-up years: 9461
HGD/CRC: 132
LGD: 309

**Negative colonoscopy
2-3 years after index LGD**

Total LGD IBD patients
N=1869

Exclusion

- Prior neoplasia (308 LGD, 23 HGD, 12 CRC)
- 47 colectomy
- 960 no colonoscopy 2-3 years after index LGD
- 25 without FU
- 89 with LGD at colonoscopy

Patients with negative colonoscopy in 2-3 years after index LGD

N=405

**Incidence rate HGD/CRC:
13.3**

Follow-up years: 3455
HGD/CRC: 46
LGD: 122

**Negative colonoscopy
3-4 years after index LGD**

Total LGD IBD patients
N=1869

Exclusion

- Prior neoplasia (392 LGD, 27 HGD, 28 CRC)
- 69 colectomy
- 930 no colonoscopy 3-4 years after index LGD
- 30 without FU
- 63 with LGD at colonoscopy

Patients with negative colonoscopy 3-4 years after index LGD

N=333

**Incidence rate HGD/CRC:
9.3**

Follow-up years: 2681
HGD/CRC: 25
LGD: 100

**Negative colonoscopy
4-5 years after index LGD**

Total LGD IBD patients
N=1869

Exclusion

- Prior neoplasia (446 LGD, 34 HGD, 37 CRC)
- 85 colectomy
- 925 no colonoscopy 4-5 years after index LGD
- 26 without FU
- 40 with LGD at colonoscopy

Patients with negative colonoscopy 4-5 years after index LGD

N=276

**Incidence rate HGD/CRC:
10.4**

Follow-up years: 2119
HGD/CRC: 22
LGD: 83

