Should right-sided lesions be surveilled differently than left-sided?

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Disclosure

• No conflict of interests
Cspy & distal/proximal CRC death

- Nishihara, NEJM 2013
  - observational study
  - 88,902 subjects
  - 474 CRC deaths
- Dist CRC, HR (95%CI)
  0.24 (0.18-0.32)
- Prox CRC, HR (95%CI)
  0.73 (0.57-0.92)

- Baxter, An Int Med 2009
  - case-control study
  - 10,292 cases (CRC death)
  - 51,460 controls
- Dist CRC, OR (95%CI)
  0.39 (0.34-0.45)
- Prox CRC, OR (95%CI)
  1.07 (0.94-1.21)
Cspy & distal/proximal CRC death

- Quality
  - Worse bowel prep
  - Incomplete cspy

- Surveillance
  - Different histology and molecular features
  - More difficult to remove

Brenner, JNCI 2010
Heresbach, Endoscopy 2008
Azzoni, Int J Colorectal Dis 2007
Sugai, J Mol Diagn 2006
Soetikno, JAMA 2008
Risk of advanced neoplasia

• Matrinez, Gastroenterology 2009
  – 8 prospective high-quality studies
  – 9,167 subjects
  – median age 62 yrs
  – 4 yrs of follow-up
  – 1,082 (11.8%) advanced adenomas
  – 58 (0.6%) CRCs
Risk of advanced neoplasia

- Age ≥60 yrs
- Male sex
- Previous polyp
- Multiple adenoma
- Size ≥10 mm
- Villous/tubulo-villous histology
- Proximal location

$\text{OR} = 1.68$

95% CI 1.43-1.98
Risk of CRC

• Atkin, Lancet 2017
  – 11,944 intermediate-risk subjects
    • 1-2 adenomas ≥10 mm
    • 3-4 adenomas <10 mm
  – median age 67 yrs
  – 7.9 yrs of follow-up
  – 210 (1.8%) CRCs
  – 58% had surveillance
Risk of CRC

- Surveillance colonoscopy
- Age $\geq 65$ yrs
- Size $\geq 10$ mm
- Tubular/tubulo-villous histology
- High-grade dysplasia
- Poor bowel prep
- Incomplete exam
- Proximal location

$HR = 1.76$
$95\% CI 1.30-2.38$
Risk of CRC

- Polish Colonoscopy Screening Program
  - 13,968 high-risk subjects
    - ≥3 adenomas or ≥10 mm in size or HGD or villous/tubulo-villous
  - median age 57 yrs
  - 6.5 yrs of follow-up
  - 62 (0.4%) CRCs
  - ~30% had surveillance
Risk of CRC

HR* = 1.31
95%CI 0.79-2.17

*Age, sex and FH adjusted
Risk of CRC

• Cottet, GUT 2011
  – 5,779 subjects
  – mean age 61 yrs
  – 7.7 yrs of follow-up
  – 87 (1.5%) CRCs
  – 58% had surveillance
Risk of CRC

- Adenoma location, SIR (95% CI)
  - Proximal only 1.26 (0.25-3.67)
  - Distal only 2.08 (1.33-3.09)
  - Rectum only 2.85 (1.56-4.78)
  - Multiple locations 2.58 (1.33-4.50)
Risk of CRC death

- Loberg, NEJM 2014
  - 40,826 subjects
  - median age ~65 yrs
  - 7.7 yrs of follow-up
  - 1,273 (1.8%) CRC deaths
Risk of CRC death

- Adenoma location, SMR (95% CI)
  - Distal 0.99 (0.87-1.14)
  - Proximal 0.87 (0.66-1.15)
  - Multiple or unknown 0.95 (0.80-1.14)
Risk of CRC death

- Emilsson, Scand J Gastro 2017
  - 90,864 subjects
  - median age 68 yrs
  - 7.2 yrs of follow-up
  - 731 (0.8%) CRC deaths
Risk of CRC death

- Adenoma location, SMR (95% CI)
  - Colon 1.01 (0.91-1.11)
  - Rectum **1.25 (1.13-1.39)**
  - Both colon and rectum 1.31 (1.03-1.66)
Conclusion

• Advanced neoplasia
  – 1 study: increased risk

• CRC
  – 1 study: increased risk
  – 1 study: no effect
  – 1 study: inversed effect

• CRC death
  – 2 studies: no effect
Conclusion

• Advanced neoplasia
  – 1 study: increased risk

• CRC
  – 1 study: increased risk (67 yrs, 58% surveillance)
  – 1 study: no effect (57 yrs, ~30% surveillance)
  – 1 study: decreased risk (61 yrs, 58% surveillance)

• CRC death
  – 2 studies: no effect
Conclusion

• Advanced neoplasia
  – 1 study: increased risk

• CRC
  – 1 study: increased risk (67 yrs, 58% surveillance)
  – 1 study: no effect (57 yrs, ~30% surveillance)
  – 1 study: decreased risk (61 yrs, 58% surveillance)

• CRC death
  – 2 studies: no effect (definition?)
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