


OMED COLORECTAL CANCER SCREENING COMMITTEE MEETING
Saturday, May 1, DDW New Orleans, 2010
Presenter: Silvia Sanduleanu



World Organisation of Digestive Endoscopy

Colorectal Screening Committee


Non-polypoid colorectal neoplasia and serrated pathway in colorectal carcinogenesis: data from a Dutch cohort

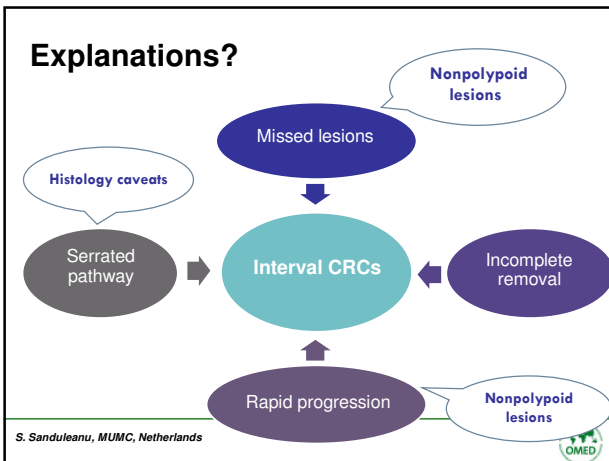
Silvia Sanduleanu, MD, PhD
 Maastricht University Medical Center,
 The Netherlands

Does colonoscopy protect against colorectal cancer ?

Study	Outcome	Results
Baxter, 2009	CRC death	Right colon: OR 0.99 Left colon: OR 0.33
Brenner, 2009	CRC/advanced adenoma	Right colon: OR 1.05 Left colon: OR 0.33
Lakoff, 2008	Interval CRC	Right colon: RR 0.83 Left colon: 0.35
Bressler, 2007	Interval CRC	Right: 5.9% Left : 2.3% Women: 4.1%; Men: 2.9%
Singh, 2006	Interval CRC	47% right-sided, 1.1/1000 PY
Martinez, 2009	Interval CRC	0.6% CRC 1.7 /1000 PY
Lieberman, 2007	Interval CRC	1.7 / 1000 PY
Robertson, 2005	Interval CRC	0.7% CRC 1.7/1000 PY

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NP-CRN: climbing the learning-pyramid

Does 2466 colonoscopies, academic hospital
Febr 2008-Febr 2009, 16 endoscopists

Shows how Feedback/ supervision

Knows how Video-training

Knowledge Lectures

GI endoscopy competence

S. Sanduleanu, MUMC, Netherlands Miller GE. Academic Medicine 1994

Aims

- To study the prevalence of **NP-CRN** and its association with advanced histology
Special attention to **gender** differences
- To study the prevalence of **serrated lesions** and its association with synchronous advanced CRN

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Quality colonoscopy

Does

Shows how

Knows how

Knows

GI endoscopy competence

Quality indicators
 - cecal intubation: 91.3%
 - prevalence adenomas: 26.8%

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Study design

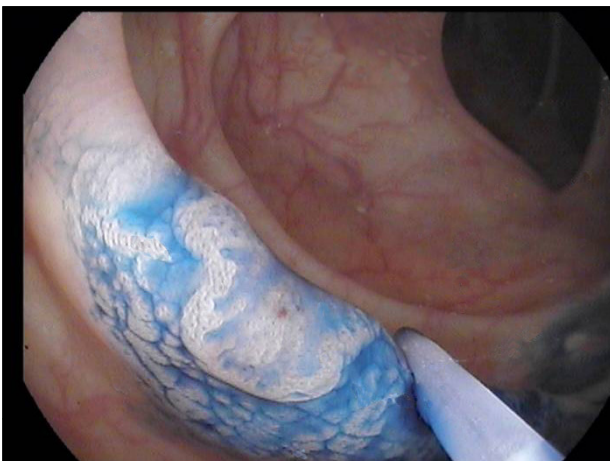
Data collection

- Colonoscopy
 - standardized reporting system
 - digital photographic documentation
- Colorectal lesions
 - size, location, morphology (Paris classification)
 - histopathology (WHO classification)
 - Definition advanced histology
 - presence of HGD or early CRC (T1)

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Logistic regression analysis

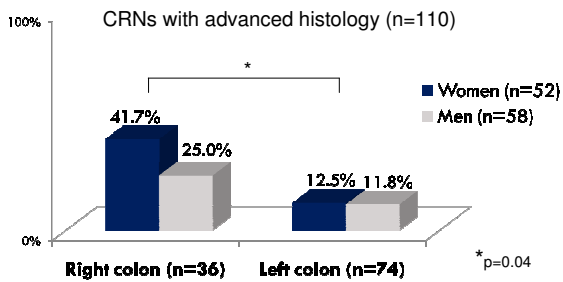
- Outcome: presence of HGD/ early CRC

	Women			Men		
	OR	95% CI	p-value	OR	95% CI	p-value
Age	0.98	0.95 – 1.01	0.10	1.03	1.00 – 1.07	0.04
Left-sided location	2.54	1.21 – 5.31	0.01	1.59	0.88 – 2.87	0.13
Size ≥ 10mm	6.05	3.13 – 11.70	<0.001	8.40	4.61 – 15.31	<0.001
Nonpolypoid	2.89	1.24 – 6.74	0.01	0.91	0.41 – 2.06	0.83

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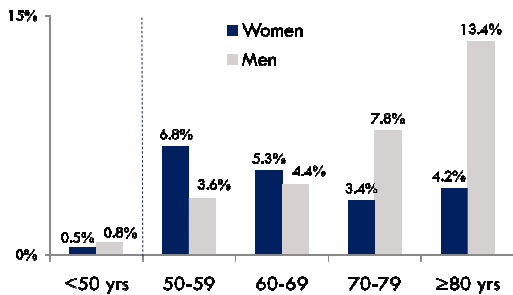
**Prevalence of nonpolypoid morphology:
relation to location and gender**



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Age and prevalence of advanced histology



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Serrated lesions

• **Definition**

High-risk SL

- Hyperplastic polyp ≥ 6 mm and right-sided
- Serrated adenoma

Low-risk SL

- Hyperplastic polyp ≤ 5 mm or left-sided

• **Prevalence**

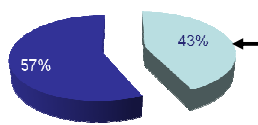
- SLs: 13.9%
- High-risk SLs: 2.5%

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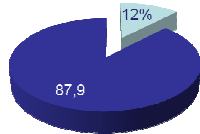


Serrated lesions with nonpolypoid morphology

High-risk serrated lesions (n=65)



Low-risk serrated lesions (n=428)



Legend:
■ Nonpolypoid morphology
■ Polypoid morphology

p<0.001

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Logistic regression analysis

• Outcome: **presence of advanced colorectal lesion***

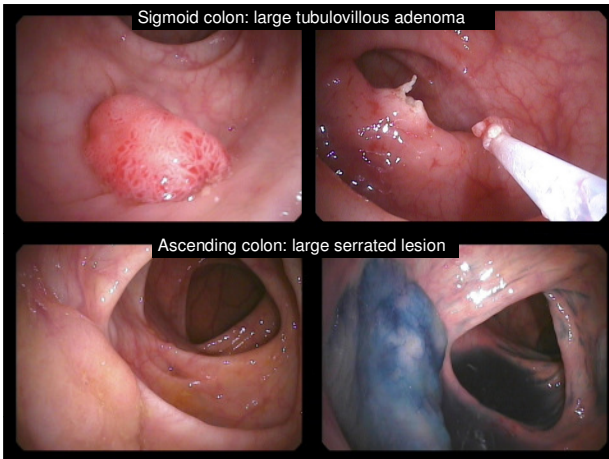
	OR	95% CI	p-value
Age	1.05	1.04 - 1.06	<0.001
Male	1.48	1.14 - 1.91	0.003
Non-advanced adenoma	4.29	3.31 - 5.57	<0.001
Low-risk serrated lesion	0.87	0.60 - 1.26	0.45
High-risk serrated lesion	3.85	2.12 - 7.00	<0.001

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*Defined as multiple (≥ 3), large, high-grade dysplastic adenoma or CRC



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Conclusion (1)

NP-CRNs

- NP-CRNs in women have increased risk to contain HGD/ early CRC
- This may explain the fact that although women have fewer adenomas, they have *equal risk* to develop CRC as men.

High-risk serrated lesions

- Nearly half have nonpolypoid appearance
- Associated with synchronous advanced colorectal neoplasms

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Conclusion (2)

- Nonpolypoid mechanisms and serrated pathway may explain some of the interval CRCs
- Awareness and training on detection and management of nonpolypoid lesions may improve CRC prevention

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Acknowledgements

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