



Session II: New light on CRC epidemiology

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Mortality due to screen-detected and interval cancer

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Objective

The aim was to analyze the mortality in participants of a population-based fecal occult blood test screening diagnosed with colorectal cancer (CRC) comparing **screen-detected** and **interval cancers**.



Methods



Study population: Screening participants diagnosed with CRC during the screening process or the interval between invitations.

Screening Period: 2000-2015 [guaiac-based test and immunochemical test]

Follow-up: cases were censored at five years.

Methods: Hospital administration data was used to identify invasive CRC. Mortality was obtained from the National Statistics Institute, april 2019.

Analysis: Cox regression model adjusted for confounding variables.



Results

Of 396 CRC, 269 were screen-detected and 127 were diagnosed within 24-30 months (32%)

Interval rate for FIT: 20%

5-year mortality: 11.6%

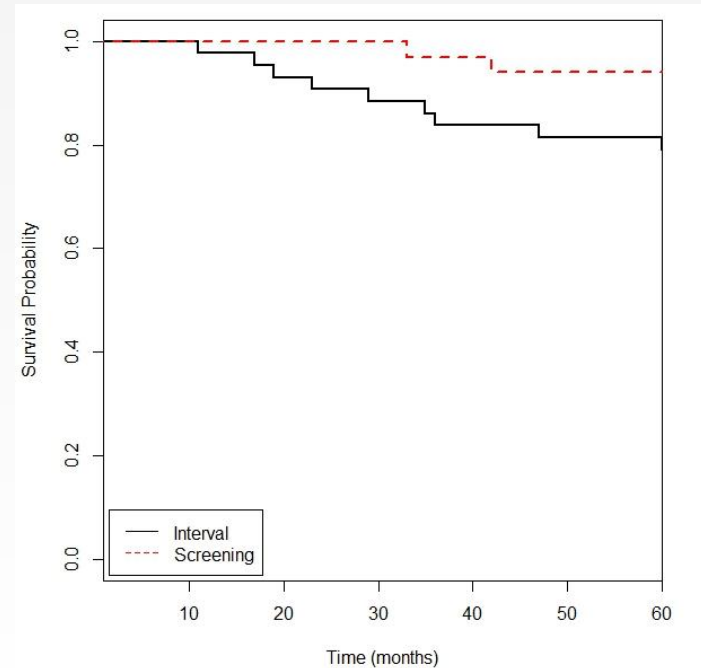
	Interval	Screen-detected
Sex		
Female	44 (34.6)	93 (34.6)
Male	83 (65.4)	176 (65.4)
Age at diagnosis		
50-59	28 (22.0)	91 (33.8)
60-69	80 (63.0)	162 (60.2)
≥70	19 (15.0)	16 (5.9)
Screening		
Initial	39 (30.7)	127 (47.2)
Successive	88 (69.3)	142 (52.8)
Cancer site		
Proximal	32 (25.2)	68 (25.3)
Distal	39 (30.7)	56 (44.1)
Rectum	56 (44.1)	59 (21.9)
Cancer staging		
I-II	62 (48.8)	65 (51.2)
III-IV	167 (62.1)	102 (37.9)



Results

	HRa	95%CI
Diagnosis		
Screen-detected	1	
Interval CRC	1.91	(1.06-3.43)
Age at diagnosis		
(Continuous)	1.00	(0.94-1.05)
Sex		
Female	1	
Male	1.04	(0.57-1.91)
Cancer Staging		
I-II	1	
III-IV	5.75	(2.76-11.98)

Advanced cancers (stage III-IV)



Discussion

Interval cancers: Rapid growing tumors or just false negative results?

False negative results: Which tumors have more propensity to bleed?

Biology differences: Are interval cancers more aggressive? Are they more lethal?

Survival curves for interval cancers and control group cancers (non-screened population) are equivalent



Conclusions

There are differences in mortality according the type of diagnosis and it is not only explained by the delay of diagnosis and consequently, cancer staging.

Further research is needed to identify which proportion of interval cancers are aggressive and fast-growing tumors.



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