Colorectal Cancer in a Tertiary Hospital in Indonesia: Incidence in the Young Age and Associated Factors

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Background

Early-onset colorectal cancer (CRC) incidence under the age of 50 has been increasing worldwide. However, epidemiological data of early-onset CRC especially in developing countries are still limited. This study aims to evaluate the prevalence, socio-demographics, clinical and histopathological features, and risk factors associated with early-onset CRC patients in Indonesia.

Methods

This retrospective study collected data from medical records of patients diagnosed with CRC at Gastrointestinal Endoscopy Center, Cipto Mangunkusumo National General Hospital, Jakarta, during 2008 to 2019. The subjects were classified into early-onset (diagnosed at 18-49 years old) and late-onset (diagnosed at ≥50 years old) CRC. The findings among both groups were analyzed using chi-square test.

Results

Of 495 CRC patients confirmed by histopathological results, 205 patients (41.4%) were early-onset CRC cases while 290 (58.6%) were late-onset. 53.7% early-onset CRC patients were male and 89.8% had adenocarcinoma histopathological subtype. 78% early-onset CRC patients had left-sided tumors, with rectum (41%) and rectosigmoid (17.6%) being the most common sites. Abdominal pain was the most frequent symptom found in early-onset CRC (55.6%), significantly higher compared to late-onset CRC (43.8%). Early-onset CRC cases were more likely to be underweight (34.6%), and 9.3% were suspected with hereditary non-polyposis colorectal cancer (HNPCC), both variables were significantly higher than late-onset CRC. However, no difference was found in terms of parental nor other family history of CRC.

Conclusion

Most patients with early-onset CRC were male, had left-sided tumors and histopathologically showed adenocarcinoma. Greater proportion of early-onset CRC patients were presented with abdominal pain, categorized as underweight, and suspicion of HNPCC.

Table 1 Comparison of early-onset and late-onset CRC patients in Gastrointestinal Endoscopy Center, Cipto Mangunkusumo National General Hospital, Jakarta, during the period of 2008-2019

Variables	Early-onset CRC n (%)	Late-onset CRC n (%)	Total subjects n (%)	p
			495 (100)	
Age at diagnosis				
<50 years old	205 (41.4)			
18-29	26 (5.3)			
30-39	62 (12.5)			
40-49	117 (23.6)			
≥50 years old		290 (58.6)		
50-59		135 (27.3)		
60-69		95 (19.2)		
70-79		52 (10.5)		
80-89		8 (1.6)		
Gender				
Male	110 (53.7)	162 (55.9)	272 (54.9)	
Female	95 (46.3)	128 (44.1)	223 (45.1)	
Clinical manifestations				
Diarrhea	46 (22.4)	83 (28.6)	129 (26.1)	
Constipation	69 (33.7)	94 (32.4)	163 (32.9)	
Abdominal pain*	114 (55.6)	127 (43.8)	241 (48.7)	0.010
Hematochezia	99 (48.3)	150 (51.7)	249 (50.3)	
Weight loss	72 (35.1)	97 (33.4)	169 (34.1)	
Associated risk factors				
Parental history of CRC	8 (3.9)	4 (1.4)	12 (2.4)	
Other family history of CRC	6 (2.9)	8 (2.8)	14 (2.8)	
Suspicion of FAP	4 (2.0)	6 (2.1)	10 (2.0)	
Suspicion of HNPCC*	19 (9.3)	12 (4.1)	31 (6.3)	<0.05
BMI*				<0.001
Underweight	71 (34.6)	58 (20.0)	129 (26.1)	
Normoweight	71 (34.6)	101 (34.8)	172 (34.7)	
Overweight and obese	63 (30.7)	131 (45.2)	194 (39.2)	

Keyword:

Colorectal cancer; Early-onset; Epidemiology; risk factors