

Conference Paper

The Clinicopathology Profile of Adenocarcinoma Colorectal

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Abstract.

Colorectal adenocarcinoma is the second deadliest cancer in the world. It starts in the large intestine and rectum. At Hasan Sadikin Hospital Bandung, the incidence of this disease was 224 cases in 2015, 187 cases in 2016, 212 cases in 2017. The mortality rate and prognosis of individuals suffering from Colorectal Adenocarcinoma were related to their clinicopathological profile. This paper is a cross-sectional study in which the Clinicopathological data comes from the medical records of patients at Hasan Sadikin Hospital between 2015 and 2017. Wald's statistics was used to analyze the results of the data in the 95% confidence range/interval. There were 149 samples, and the number of men and women were similar. The mean age was 57. The study discovered that the proportion of carcinomas in the left colon (71.23%, 95% CI 63.31- 78.04%) were much higher than in the right colon (28.77%, 95%CI 21.95- 36.69). The anatomical pathological features of NOS dominated the sample (95.3%, 95% CI 90.42- 97.76%) far more than non-NOS/mucinous. The proportion of grading well differentiation was slightly higher in the moderate-poor differentiation group. T3, N0, and Mx were the most common staging in this study. Lymphovascular invasion was the most common invasion (55.7%, 95% CI 47.58- 63.53%). The results are in line with a Chinese study that stated that the Adenocarcinoma NOS variant is the most common variant and has a better prognosis. However, the location of the tumors in Indonesia s were predominantly on the left colon, while tumors found in the Chinese were predominantly on the right colon. The primary staging of patients in this study were T3, while in the Chinese study, it was primarily T4. Lymphovascular invasions were more common in patients in this study compared to that in China. This shows that there are differences in pathogenesis, molecular genetics and severity.

Keywords: adenocarcinoma colorectal, clinicopathology

1. INTRODUCTION

Colorectal cancer (CRC) is the third most commonly diagnosed cancer in men and the second in women, with an estimated 1.4 million cases and 693,900 deaths occurring in 2012 worldwide Colorectal cancer (CRC) is an emerging public health problem in Indonesia and currently ranks among the three highest cancers. The age- standardized incidence rates of CRC per 100.000 populations in Indonesia were 19.1 for men and 15.6

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for women [1]. These rates are much lower than the incidence rates in Australia, New Zealand and Western Europe, but the number of cases is high because Indonesia ranks the fourth most populated country in the world with more than 235 million populations [2].

Incidence of colorectal cancer was higher in male (54%) than female (46%). Peak cancer cases occurred in the age of 50-54 years. DKI Jakarta, Central Java, DIY Yogyakarta as the three provinces which have highest incidence for colorectal cancer. The highest microscopic verification was in Papua, Central Java, and South Sulawesi. The highest percentage location was in the colon. The type of morphology was adenocarcinoma [3].

The aim of this study was to perform a comprehensive and simultaneous analysis of clinicopathological on a large series of proximal and distal colon carcinomas and rectal cancers in order to provide evidence for the concept of viewing these tumours as distinct clinicopathologic entities based on their anatomic locations [4].

2. METHODS

Samples were obtained from medical record patients registered diagnosed with ADCCR at Dr Hasan Sadikin Hospital Bandung, from January 1st, 2015, until December 2016. Samples were attained after approved by the Ethical Committee with assessment number 105/UN6.KEP/EC/2019, and then drawn according to inclusion criteria

3. STATISTICAL ANALYSIS

The data obtained from this research descriptive analysis was using Wald's statistics to see the results of the proportion in the 95% confidence range/interval.

4. RESULTS

Our study demonstrates that 149 sample with equal proportion among man and woman (Table 1). For man (57.72%, 95% CI 46.58; 65.45) little higher than woman (42.28%, 95% CI 34.55; 50.41%). For median age was 57 years, but there is subject age 23 y.o. left-sided colon cancer (71.23%, 95% CI 63.31;78.04%) had a higher proportion than right-sided colon cancers (28.77%, 95%CI 21.95;36.69. the most frequent area is left colon and sigmoid colon. But in the right the ascending colon is the most frequent area. Proportion of left colon higher than right. The most finding location in left colon were rectum

TABLE 1: Clinicopathologic characteristics.

Characteristics	n	%	95% CI		Min	Median	Max	Mean	SD
Gender									
Male	86	57,72	49,58	65,45	-	-	-	-	-
Female	63	42,28	34,55	50,41	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-
Age					23	57	85	55,42	13,53
Tumor location									
Right-sided colon	42	28,77	21,95	36,69	-	-	-	-	-
Left-sided colon	104	71,23	63,31	78,04	-	-	-	-	-
Total	146	100	-	-	-	-	-	-	-
Specific location									
Cecum	8	5,37	-	-	-	-	-	-	-
Ascending colon	20	13,42	-	-	-	-	-	-	-
Hepatic flexure	3	2,01	-	-	-	-	-	-	-
Transversal colon	11	7,38	-	-	-	-	-	-	-
Descending colon	3	2,01	-	-	-	-	-	-	-
Sigmoid colon	28	18,79	-	-	-	-	-	-	-
Rectum	64	42,95	-	-	-	-	-	-	-
Anus	3	2,01	-	-	-	-	-	-	-
Right colon	1	0,67	-	-	-	-	-	-	-
Left colon	2	1,34	-	-	-	-	-	-	-
Colon	1	0,67	-	-	-	-	-	-	-
Others	5	3,36	-	-	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-
Histopathological appearance									
Adenocarcinoma NOS	142	95,3	90,42	97,76	-	-	-	-	-
Adenocarcinoma non-NOS	7	4,7	2,24	9,58	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-
Tumor grading									
Well differentiated tumor	80	53,69	45,59	61,59	-	-	-	-	-
Moderate and poor differentiated tumor	69	46,31	38,4	54,41	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-

follow by sigmoid colon. Meanwhile for right colon was ascending colon. Histopathology appearance for Nos dominate higher than non-NOS, and the most frequent grading is well differentiated (95.3%, 95% CI 90.42; 97.76%). Proportion of limfovaskuler invasion the most frequent (55.7%, 95% CI 47.58; 63.53%) than none. The most frequent staging was T3, N0, Mx.

TABLE 1: (continued)

Characteristics	n	%	95% CI		Min	Median	Max	Mean	SD
T stage									
Tis	1	0,67	-	-	-	-	-	-	-
T1	4	2,68	-	-	-	-	-	-	-
T2	45	30,2	-	-	-	-	-	-	-
T3	85	57,05	-	-	-	-	-	-	-
T4	9	6,04	-	-	-	-	-	-	-
T4a	2	1,34	-	-	-	-	-	-	-
T4b	3	2,01	-	-	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-
N stage									
Nx	21	14,09	-	-	-	-	-	-	-
N0	77	51,68	-	-	-	-	-	-	-
Nis	21	14,09	-	-	-	-	-	-	-
N1	1	0,67	-	-	-	-	-	-	-
N2	8	5,37	-	-	-	-	-	-	-
N4	4	2,68	-	-	-	-	-	-	-
N4a	4	2,68	-	-	-	-	-	-	-
N4b	13	8,72	-	-	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-
M stage									
Mx	107	71,81	-	-	-	-	-	-	-
M0	29	19,46	-	-	-	-	-	-	-
M1	8	5,37	-	-	-	-	-	-	-
M1a	4	2,68	-	-	-	-	-	-	-
M1b	1	0,67	-	-	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-
Lymphovascular invasion									
No invasion	40	26,85	20,29	34,59	-	-	-	-	-
Invasion	83	55,7	47,58	63,53	-	-	-	-	-
Not recorded	26	17,45	12,12	24,46	-	-	-	-	-
Total	149	100	-	-	-	-	-	-	-

5. DISCUSSION

In our study left-sided colon cancer (71.23%, 95% CI 63.31;78.04%) had a higher proportion than right-sided colon cancers (28.77%, 95%CI 21.95;36.69). Studies have also suggested that the disease biology is different between right- and left-sided colon cancers. Moreover, understanding differences in tumor biology may ultimately affect

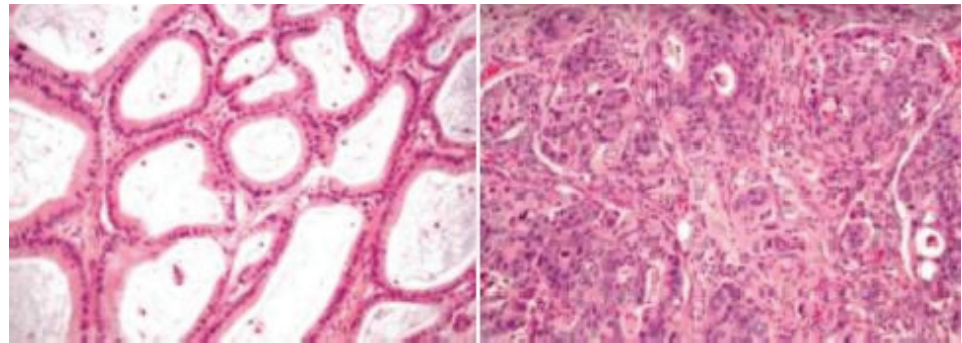


Figure 1: Left: well differentiated; Right: poor differentiated.

the treatment modalities, specifically chemotherapy and targeted therapy regimens (Fig. 1).

This study is in line with Wu's research, China which stated that the variant of Adenocarcinoma NOS was the most common variant with a better prognosis. Meanwhile, the location of the tumor in Indonesia is dominant on the left, different from that in China, which is dominant on the right. The predominant staging in patients in this study was T3, whereas according to the study in China, the staging was predominantly T4. However, lymphovascular invasion was most common in patients in this study compared to cases in China. This shows that there are differences in pathogenesis, molecular genetics and severity.

6. CONCLUSION

According to this research, the Adenocarcinoma NOS variety is the more frequent and has a better prognosis. The tumor is more prominent on the left side of the body. T3 was the most common stage among the subjects in this study. The most common type of lymphovascular invasion in the participants in this study was lymphovascular invasion. This demonstrates that pathogenesis, molecular genetics, and severity differ.

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