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The Profile of Colonoscopy at Wangaya Regional General Hospital, Bali, Indonesia from January 2018 to December 2018

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Abstract: ***Background: Colonoscopy is a low-risk examination that allows visualization of the entire colon and the terminal portion of the ileum as well as visually and therapeutically. This study aims to determine the colonoscopy profile at Wangaya Regional General Hospital, Bali from the period January 2018 to December 2018. Methods: This was a descriptive retrospective study using taking secondary data of patients from medical record Department Wangaya Regional General Hospital Denpasar. Results: The highest proportion based on age is age 60 – 69 years old (26, 15%). While incidence rate is higher at male than female. About 33, 1% of patients underwent colonoscopy have a normal result. Internal haemorrhoid is the most frequent case (23, 94%) followed by colorectal tumour (23, 24 %). Internal haemorrhoid happens most common in the group age of 60 – 69 years old. While in colorectal tumour happens most common in the group age of 60 – 69 years old. Conclusion: The profile's proportion in Wangaya Regional General Hospital based on age is highest at the age of 60 to 69 years old. The incidence is higher in male rather than female. The highest abnormal findings in colonoscopy at our study are internal haemorrhoid and colorectal cancer.***

Keywords: Colonoscopy, Diagnosis, Haemorrhoid, Colorectal Cancer, Risk Factor

1. Introduction

Lower gastrointestinal (LGI) diseases cause lot of morbidity and mortality. Colonoscopy plays a vital role in screening, diagnosis, treatment and follow up of these conditions [1]. In Indonesia, colonoscopy is one of the diagnostic modalities for patients who have complaints of the lower gastrointestinal tract. Consider the cancer cases in Indonesia, especially colorectal cancer at a young age, the incidence of colorectal cancer is reported to be 12.8 per 100, 000 adults. Colorectal cancer is reported to contribute to 9.5% of all cancer mortality cases [2]. Colonoscopy is a procedure use for the diagnosis, treatment, screening and follow up off all colonic segments and their diseases from anus to cecum with flexible instruments which is specially manufactured with light and camera. Colonoscopy is the examination of the colonic mucosa, and it is also possible to examine the terminal ileum during colonoscopy. It is useful to briefly review the anatomy of the colon before explaining this definition broadly [3].

Colonoscopy indications can be counted as iron deficiency anaemia, lower gastrointestinal bleeding, lower abdominal pain, chronic constipation, uncomplicated diarrhoea, evaluation of known ulcerative colitis and Crohn disease, follow ups after polypectomy, follow ups after colorectal surgery, colorectal cancer screening, colonic masses, intraluminal colonic pathologies and underfined weight losses etc [3].

Contraindications are classified as absolute and relative contraindications. Absolute contraindication can be defined as intestinal perforation, acute peritonitis, complete or high grade intestinal obstruction, patient refusal to the procedure, toxic megacolon etc. Relative contraindication are classified as bleeding disorders, thrombocytopenia, platelet dysfunction, neutropenia, previous bowel surgery, patient at risk of bowel perforation, acute diverticulitis, cardiac infraction history, pulmonary embolism, pregnancy (second and third trimester), and haemodynamic instability [3].

This study aims to determine the profile of intestinal colonoscopy that performs colonoscopy examination at Wangaya Regional General Hospital Denpasar period January 2018 to December 2018.

2. Methods

The type of research conducted is descriptive retrospective using secondary data at the Medical Record Installation of Wangaya Regional General Hospital Denpasar period January 2018 to December 2018. The study population is outpatient and inpatient who underwent colonoscopy examination at Wangaya Regional General Hospital Denpasar period January 2018 to December 2018. The research sample is all medical records of patients with lower gastrointestinal disorders who performed colonoscopy examinations at Wangaya Regional General Hospital Denpasar for the period January 2018to December 2018. Research variables are age, gender, and diagnosis.

3. Results

From January 2018 until December 2018, there are 130 patients underwent colonoscopy at Wangaya Regional General Hospital, Bali, Indonesia. The profile's proportion of colonoscopy has been described in several categories. There were 83 males (63, 85%) and 47 females (36, 15%) in this study. The proportion based on age is highest in the age 60 – 69 years old (26, 15%) and the lowest in the age 20 –

29 years old (6, 93%) with mean age of 54, 73 ± 15, 28 years old.

About 33, 1 % of patients underwent colonoscopy have a normal result. Internal haemorrhoid is the most frequent case (23, 94%) followed by colorectal tumour (23, 24 %) and the lowest is rectal polyps (0, 70 %). Internal haemorrhoid happens most common in the group age of 60 – 69 years old and the least in the group age of 20 – 29 years old. While in colorectal tumour happens most common in the group age of 60 – 69 years old and the least in the group age of 30 – 39 years old.

Table 1: The Characteristics of Patient

Characteristics	Frequency (N=130)	Percentages (%)
Gender		
Male	83	63, 85
Female	47	36, 15
Age		
20 – 29 years old	9	6, 93
30 – 39 years old	16	12, 30
40 – 49 years old	19	14, 62
50 – 59 years old	31	23, 85
60 – 69 years old	34	26, 15
≥ 70 years old	21	16, 15

Table 2: The Outcome of Colonoscopy

Outcome	Frequency (N=142)	Percentage (%)
Colorectal tumour suspect cancer		
Ileocecal	4	2, 82%
Colon Ascendants	4	2, 82%
Colon Descendants	9	6, 34%
Sigmoid	3	2, 11%
Rectum	13	9, 15%
Rectal Polyps	1	0, 70 %
Diverticulum	2	1, 41 %
Non-Specific Colitis	6	4, 23 %
Proctitis	2	1, 41 %
Inflammatory Bowel Disease (IBD)	7	4, 93 %
Irritable Bowel Syndrome (IBS)	6	4, 23 %
External Hemorrhoid	4	2, 82 %
Internal Hemorrhoid	34	23, 94%
Normal	47	33, 10 %

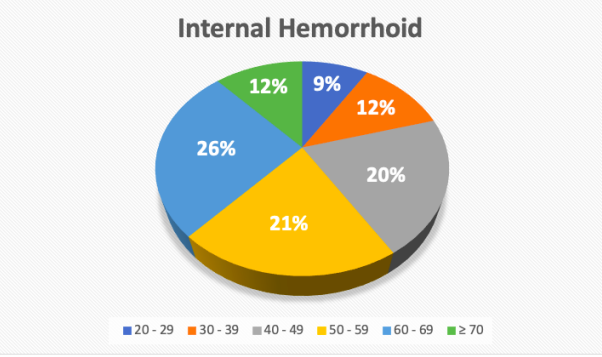

Figure 1: Characteristics of Patient by Group Age in Internal Hemorrhoid

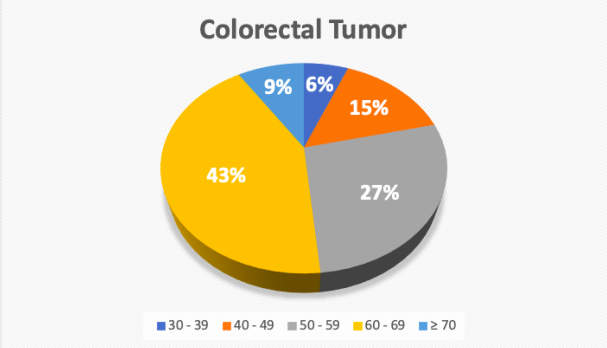

Figure 2: Characteristics of Patient by Group Age in Colorectal Tumor

4. Discussion

The profile's proportion in Wangaya Regional General Hospital based on age is highest at the age of 60 to 69 years old at 26.15% followed by the age of 50 to 59 years old at 23, 85%.This is different from study by Gunawan DF, *et al* and Sugiarta RM, *et al*. Both of their study has the proportion of patients with highest at the age group of 50 to 59 years old and 51 to 60 years old respectively. However, our profile's proportion based on gender is consistent with both of their study where the incidence is higher in male rather than female [4] [5]. In our study, the incidence ratio of male and female is 1.7:1.

Lower Gastrointestinal Bleeding (LGIB) is a significant cause of morbidity and mortality especially in the elderly worldwide. The incidence increases with age and is more common in men than women [6]. Multicentre database studies in the United State and Europe suggest that the most common aetiology of LGIB are diverticular disease, haemorrhoids, colonic polyps, and colitis [7]. The profile of colonoscopy at developing countries is contrasting with our study. Few studies atregions at Asia and Africa with the highest findings at coloscopy are haemorrhoids and colorectal cancer (CRC) [4] [5] [6] [8]. This corresponds to our study; the most common abnormal findings of colonoscopy are internal haemorrhoids and colorectal tumour suspect cancer.

Haemorrhoids often found in Americans with age between 45 and 65 years old. In our study, internal haemorrhoid happens most common in the group age of 60 – 69 years old. This little difference may be affected by race and different lifestyle [9]. While CRC in Asia often diagnosed after 50 years old [10]. This is consistent with our study where highest prevalence of colorectal tumour happens at group age of 60 – 69 years old.

The limitation of this study is that it is a single based clinic study and it is limited to one-year period so the extension of sample over years and multicentre database will give us more accurate conclusion.

5. Conclusion

The profile's proportion in Wangaya Regional General Hospital based on age is highest at the age of 60 to 69 years old. The incidence is higher in male rather than female. The

highest abnormal findings in colonoscopy at our study are internal haemorrhoid and colorectal tumour.

References

[1] Singh H. Nugent Z, Mahamud SM, Bernstein CN. Surgical resection of hepatic metastatis from colorectal cancers: A systematic review of published studies. Am J Gastroenterol 2010; 105:663-73.
[2] Komite Penanggulangan Kanker Nasional Departemen Kesehatan Republik Indonesia. Pedoman Nasional Pelayanan Kedokteran Tata Laksana Kanker Kolorektal.2018. http://kanker.kemkes.go.id/guidelines/PNPKkolorektal .pdf
[3] Omer Engin, GizemKilinc, and Oguzhan Sunamak. Colon polyps and colorectal cancer. Second Edition. Springer Nature Switzerland AG. 2021;45-3
[4] Gunawan DF, Waleleng BJ, Polii EB. Profilpasienendoskopi gastrointestinal di RSUP Prof. Dr.RD Kandouperiode Januari 2018-Agustus 2019. e-CliniC. 2019;7(2).
[5] Sugiarta IG, Sumandi IK. The endoscopy profile of patients with Gastrointestinal Bleeding (GIB) at Klungkung Regional General Hospital, Bali, Indonesia during the 2014-2018 period. Intisari Sains Medis. 2020; 11(1):306-309
[6] Kassim A. Etiological Profile of Patients Presenting with Lower Gastrointestinal Bleeding in Ibb Governorate-Yemen. Open Access Library Journal. 2018; 5(06):1.
[7] Oakland K. Changing epidemiology and etiology of upper and lower gastrointestinal bleeding. Best Practice & Research Clinical Gastroenterology. 2019 Oct 1; 42:101610.
[8] Ajayi AO, Ajayi EA, Solomon OA, Udo E. Lower gastrointestinal bleeding: Spectrum of colonoscopy findings in Ado-Ekiti, Nigeria. International Journal of Medicine and Medical Sciences. 2014 May 31; 6(5):128-33.
[9] Yamana T. Japanese practice guidelines for anal disorders I. Hemorrhoids. Journal of the anus, rectum and colon. 2017 Jul 27;1(3):89-99.
[10] Wong MC, Ding H, Wang J, Chan PS, Huang J. Prevalence and risk factors of colorectal cancer in Asia. Intestinal research. 2019 Jul;17(3):317.