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Histopathological Characteristics of Colon Polyps – A Population-based Study in Tirana, Albania

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Abstract

Background: In Western countries the most common polyps are adenomatous.1 There are no studies from Albania regarding of polyps in colorectal area.

Objectives: Our aim was to evaluate the predominant colorectal polyps in our two centers of Albania.

Material and Methods: We retrospectively analyzed the pathology reports of colonoscopies during a six-year study (2008-2013).

Results: During these years, patients with colorectal polyps were referred to these two centers. The most common types of polyps were adenomatous 300 (72.99%), followed by hyperplastic 69 (16.78%), inflammatory25 (6.08%) and juvenile 17 (4.13%).

Discussion: Adenomatous polyps are the most frequently found polyps in our study. There are no studies from Albania regarding the distribution of different types of colorectal polyps. Therefore in this study we tried to evaluate the frequency of colorectal polyps concerning their type, age and gender.

Keywords: Colorectal polyp; Albania; Hyperplastic; Gastrointestinal; Adenomatous; Lesion; Colonoscopy

Background

The word polyp [1] in the gastrointestinal tract is used to describe any circumscribed lesion that projects above the surface of surrounding mucosa and used alone conveys nothing about the nature of such a lesion. It is only by microscopic examination that their true nature is determined. [2]. Colorectal polyps are very common. The most common polyps of the colorectal are the epithelial polyps which consist of adenomatous and hyperplastic polyps. The other less common polyps are nonepithelial polyps consist of inflammatory and juvenile polyps [3]. Colon polyps are important lesions and a concern because of the potential for colorectal cancer, one of the most common causes of cancer-related deaths in Albania.

Objectives

Our aim was to evaluate the distribution of different types of colorectal polyps from January 2008 to December 2013 in the Department of Pathology of the University Hospital Center "Mother Teresa"and the Endoscopic Private Clinic "La Vita".

Material and Methods

This descriptive study was based on the review of 411 polypoid lesions of colon received fromJanuary 2008 to December 2013.

We examined all cases diagnosed as "polypoid lesions " for patients admitted to one of two Endoscopy Centers in Tirana , Albania. Two doctors performed colonoscopy examinations. The patients underwent polypectomy procedures when polyps were revealed or cold forceps biopsy when malignancy was suspected. Two centers performed procedures with Narrow band

Imaging NBI, EVIS EXERA II CV-180 Olympus™, high definition endoscopes and they did not use chromo-endoscopy during the identification procedure. An opened biopsy forceps, measured 7 mm and opened polypectomy snare with known diameter were used for measuring the polyps before piecemeal resection. The polyps resected en block were measured with ruler. Cold forceps and cold snare have been the polypectomy methods of choice for smaller polyps, and hot snare has been the method of choice for larger polyps. Cold forceps polypectomy was used for small polyps 1 to 3 mm. Cold snare polypectomy was the method for removal of polyps 4-10 mm. Snare supplemented with electrocautery was used for polyps greater size then 10 mm in diameter. Endocopic Mucosal Resection (EMR) was been performed on sessile polyps 2 cm in size or larger, using submucosal injection of saline creating a cushion for the polyp and then hot snaring the polyp either en bloc or piecemeal. The most common way to retrieve a polyp which was snared was suctioning the

polyp through the scope into a poliptrap. Sometimes polyp tissue can also be grabbed with forceps or with a snare while the entire colonoscope is withdrawn. In case of the polypoid lesion suspected for malignancy, 7-10 specimens was taken in each lesion. Clinical data, including age, sex, endoscopic findings and clinical diagnosis were recorded. The sections were stained with HE. The slides were examined by light microscope using 4 X, 10 X and 40 X dry objectives. All the cases were examined from two pathologists.

Results

There were observed 411 polyps of large intestine, in 267 males and 144 females. The most common types of polyps were adenomatous 300 (72.99%), followed by hyperplastic 69 (16.78%), inflammatory 25 (6.08%) and juvenile 17 (4.13%).

Tubular adenomatous polyps were 225, the commonest polyps,in the current study. The age of patients ranged from 18 to 84 years with maximum number 24 in the fourth decade. In our study 159 from adenomatous polyps were tubular low grade dysplasia and 66 were tubular high grade dysplasia . The size of the polyps range from 0-4.5 cm. There were two brothers with adenomatous polyps and two female (aunt-niece) with adenomatous polyps and juvenile polyps. There were 295 (71.8%) polyps on the left side (rectum, sigmoid colon and descendent colon/from anus to lineal flexure) and 116 (28.2%) on the right side (colon ascendent and colon transvers).

Polyps	No. (%)	M/F	Age range, y
Hyperplastic	69 (16.78)	41/28	(3-73)
Inflammatory	25 (6.08)	14-Nov	(6-75)
Juvenile	17 (4.13)	7-Oct	(7-21)
Adenomatous	300 (72.99)	205/95	(18-84)

Table 1: Distribution of different types of colorectal polyps.

size in cm / Type	0-1	1.5	2	2.5	3	3.5	4	>4	Total
Hyperplastic	59	4	0	1	3	2	0	0	69
Inflammatory	20	3	2	0	0	0	0	0	25
Juvenile	1	7	4	3	2	0	0	0	17
Adenomatous	154	79	38	14	5	3	1	6	300

Table 2: Size distribution of 411 colorectal polyps.

Country	Total No. of Polyps	Adenomatous Polyps, No. (%)	Hyperplastic Polyps, No. (%)
Denmark (9)	305	184 (60.3)	121 (59.6)
Norway (14, 15)	445	329 (73.9)	174 (39.1)
Canada (16)	582	871 (83)	129 (12.3)
Hong Kong (11)	200	123 (61.5)	62 (31)
Thailand (12)	696	271 (39)	250 (36)
India (13)	151	99 (79.8%)	11 (8.8)
South Iran (1)	990	603 (60.9)	300 (30.3)
Albania	369	300 (81.3)	69 (18.7)

Table 3: Distribution of colorectal polyps in different countries.

Adenomatous polyps	0-1 cm	1.5 cm	2 cm	2.5 cm	3 cm	3.5 cm	4 cm	>4 cm	Total
Tubular low grade dysplasia	115	34	8	1	0	1	0	0	159
Tubular high grade dysplasia	10	24	19	7	0	2	0	4	66
Tubulovillous low grade dysplasia	7	1	0	0	0	0	0	0	8
Tubulovillous high grade dysplasia	3	8	4	5	4	0	0	0	24
Villous low grade dysplasia	0	4	0	0	0	0	0	0	4

Villous high grade dysplasia	0	2	6	1	1	0	1	2	13
Total	135	73	37	14	5	3	1	6	274

Table 4: Size Distribution of different types of adenomatous colorectal polyps.

Discussion

Epithelial colorectal tumors are common pathologic entities. Their histology report should be comprehensive of a series of pathological parameters essential for the correct clinical management of the patients [4]. All adenomas have variable degrees of dysplasia ranging from low- grade to high-grade. Classically, it is believed that the malignant potential of adenomas

correlates with type of polyp, size and degree of dysplasia. Higher grades of dysplasia, increasing percentage of villous tissue within the polyp and polyps greater than 1 cm in diameter are associated with increased risk of malignancy [5]. Accurately identifying the colorectal polyps will promote better patient care [6]. The prevalence of colorectal adenomatous polyps varies widely from country to country [7]. It is very important to know the distribution of colorectal polys in other countries, because it may affect the efficacy of screening modalities and also the prevalence of adenomas that are roughly equivalent to the risk of colorectal malignancies [8,9]. There are no studies from Albania and regarding the distribution of different types of colorectal polyps. Therefore in this study we tried to evaluate the frequency colorectal polyps concerning their type, age and gender. In this study the majority of polyps were adenomatous. Overall, in most of the studies from Western countries, adenomatous polyps were more common than hyperplastic polyps, these reports are comparable to our findings. In this study the majority of polyps were adenomatous located in the rectosigmoid area (Tables 1-4).

Table 3 [10] shows the comparison between our findings and other studies from Western countries and countries such as India [11], Thailand [12] and Hong Kong. Overall, in most of the studies from Western counteris, adenomatous polyps were more common than hyperplastic polyps, these reports are comparable to our findings.

The results from Iran are very similar to those from Western countries such as Norway [13,14], and Canada [15] and different from reports of countries such as Denmark in which the number of hyperplastic polyps were more common than adenomatous polyps [9]. There are also uncommon reports from countries such as Thailand in which the most common type of polyps was juvenile type colorectal polyps [12].

References

1. Geramizadeh B, Jahromi MK (2013) Pathology of Colorectal Polyps, a study in South of Iran Annals of Colorectal Research September; 1(2Mc Namara D): 59-61.
2. Mc Loughlin R, Morain CO (2004) screening for colorectal cancer. Modern Medicine 34: 19-28.
3. Abraham SC, Bargart JL, Odze DR (2004) Polyps of the large intestine. In: Odze DR, Goldblum RJ (eds) Surgical Pathology of the GI tract, liver, biliary tract and pancereas. 1st ed, Philadelphia, WB saunders company 327-335.
4. Lanzaa G, Messerinib L, Gafac R, Risiod M (2011) Digestive and Liver Disease 43S: S344-S355 ELSEVIER.
5. Philomena M, Colucci DO, Yale SH, Rall CJ (2004) Colorectal Colorectal Polyps Clin Med Res. Jul 1: 261–262.
6. Mansoor S, Dolkar T, El-Fanek H (2013) Polyps and polypoid lesions of the colon. Int J Surg Pathol 21: 215-223.
7. Giacosa A, Frascio F, Munizzi F (2004) Epidemiology of colorectal polyps. Tech Coloproctol 8 Suppl 2: s243-247.
8. Patel K, Hoffman NE (2001) The anatomical distribution of colorectal polyps at colonoscopy. J Clin Gastroenterol 33: 222-225.
9. Johannsen LG, Momsen O, Jacobsen NO (1989) Polyps of the large intestine in Aarhus, Denmark. An autopsy study. Scand J Gastroenterol 24: 799-806.
10. Coode PE, Chan KW, Chan YT (1985) Polyps and diverticula of the large intestine: a necropsy survey in Hong Kong. Gut 26: 1045-1048.
11. Wisedopas N, Thirabanjasak D, Taweevisit M (2005) A retrospective study of colonic polyps in King Chulalongkorn Memorial Hospital. J Med Assoc Thai 88 Suppl 4: S36-41.
12. Tony J, Harish K, Ramachandran TM, Sunilkumar K, Thomas V (2007) Profile of colonic polyps in a southern Indian population. Indian J Gastroenterol 26: 127-129.
13. Eide TJ, Stalsberg H (1978) Polyps of the large intestine in Northern Norway. Cancer 42: 2839-2848.
14. Vatn MH, Stalsberg H (1982) The prevalence of polyps of the large intestine in Oslo: an autopsy study. Cancer 49: 819-825.
15. Khan A, Shrier I, Gordon PH (2002) The changed histologic paradigm of colorectal polyps. Surg Endosc 16: 436-440.