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The Management of the Polyps in the Elderly

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Abstract

Backgroud and Aim: To investigate the polyp incidence and the pathological findings in the elderly population in order to prevent them from Colorectal Carcinoma (CRC), in terms of safety polypectomy.

Methods: A retrospective analysis of colonoscopies in our hospital over 2-year period was performed. This study was performed between 2012-2014 years. The outcome measures were patients age, gender, polyp localisation, pathological findings. Those who have multiple polyposis syndrome, colonic mass, inflammatory bowel disease, active colitis and active hemoragia were excluded from the study. Patients were classified as low and high risk group by pathological findings.

Results: A total of 1432 colonoscopies were evaluated during the period, 448 patients were over 65 and 168 of them were polypectomy performed. By the pathological evaluation 57 them were non displastic, 99 have Low Grade Displasia (LGD) and 12 have High Grade Displasia (HGD). 166 patients were low and 2 patients were at high risk group. Only 1 patient went under surgery in terms of safety polypectomy.

Conclusion: Some polyps may have a high risk of CRC. Regardless of age, colonoscopy seems to be the first choice for the identification and threatment of these lesions. A common and safety classification can be usefull for the treatment and the follow up of these lesions.

Keywords: Polyp; Colon; Elderly

Introduction

Nearly 10% of resected polyps have foci of carcinoma and the incidence is rising with the increasing use of colonoscopy [1]. Some of these polyps will have progression and further oncological resections should be considered for these lesions if they are not removed [2]. Surgical treatment can cause significant morbidity and mortality, especially in the elderly [3]. Screening colonoscopy surely have a possitive effect on the survival rate of colorectal cancer. Since survival rate of CRC correlates to the anatomical spread of the tumor, as well as to the surgical treatment at the right time, colonoscopy can prevent and diagnose the earliest stages of the carcinoma [4].

However there are confusions on identifying these earliest stages in the colonic polyps. Polyps showing foci of potentially malignant cells confined to the mucosa are often termed 'carcinoma in situ', but the lack of lymphatics in the mucosa prevents distant spread and as these lesions are neither regarded malignant, the term high grade mucosal neoplazm is now preferred [5]. When high grade dysplasia crosses the muscularis mucosa, the lesion is called malignant polyp. A malignant polyp is essentially a macroscopically benign lesion that contains malignant foci on further examination. When all parts of the polyp is comprised of malignancy the term polypoid carcinoma is often used [3]. The management of these lesions is based on the belief that the risk of spread can be stratified according to the histology of the resected polyp [6]. It is considered to divide these patients into two groups; low risk group who are safe without further treatment, high risk group for whom surgery or further treatment should be considered [7,8]. High risk group contains piecemeal or incomplete resection, vascular or lymphatic invasion, poor or undifferentiated histology, unfavorable invasion dept and involved margin [3,7-15].

Methods

We performed a retrospective review of all colonoscopies performed in our endoscopy unit by using our hospitals audit module of a computerised patient information system (SARUS internet and automotion system) over 2 years period. The data were collected retrospectively by colonoscopy records included patients' main details, indication for colonoscopy (screening, diagnostic or surveillance), name of endoscopist, polyp location and further treatment (polypectomy, biopsy) if present. Bowel preperation was performed by oral fleet soda and fleet enema. Colonoscopies were performed by 6 endoscopist, varying backrounds and experience but all have at least 3 year endoscopic experience. Caecal intubation time was varied depends on patients situation. All polyps were removed and the pathologic evaluation was performed. Histology and degree of atypia were confirmed by our pathologists.

Exclusion critera

Age less than 65 years, colorectal mass, polyposis syndrome, inflammatory bowel disease, acute gastrointestinal bleeding and

Table 1: Pathological evaluation.

Polyps	Total	Right	Left
Non-Dysplastic	57		
LGD	99	45	54
HGD	12	4	8

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Table 2: Patient characteristics & risk groups.

patient	gender	R.Vienna classification for dysplasia	WHO classification for sitologic type	Lenfovascular invasion	clear margin	Risk group
Z.B.	M	4.1	G1	-	+	Low
Z.D.	F	4.1	G1	-	+	Low
Y.A.	F	4.3	G2	-	+	Low
B.K.	M	4.1	G1	-	+	Low
B.M.	M	4.4	G2	-	+	Low
Y.G.	M	4.4	G1	-	+	Low
M.S.	M	4.4	G2	-	+	Low
K.D.	M	4.1	G1	-	+	Low
A.H.	M	4.4	G2	-	+	Low
H.C.	M	4.4	G2	-	?	High
E.Y.	F	4.4	G2	-	?	High

active colitis. The primary outcome was the presence of dysplasia in colonic polyps. Covariates include patient age, gender, lesion site.

Results

During 2 years period 1432 colonoscopies were evaluated, 448 patients were over 65 and 168 of them were polypectomy performed. Of the patients polypectomy performed; 94 were male and 74 were female. By the pathological evaluation 57 them were non dysplastic, 99 have LGD and 12 have HGD. Of the 99 LGDs; 45 were located at the right colon and 54 at left colon. Of the 12 HGDs; 4 were located at the right and 8 at the left colon (Table 1). 12 of the HGD group contained 10 low risk group that are safe without further treatment but 2 of them were high risk group that had to go under further treatment (Table 2). One was incomplete polypectomy and after the second colonoscopy, polypectomy was completed with clear margins. The other was piecemal polypectomy and after the second colonoscopy this patient had gone under surgical treatment because the polyp margin is not clearly shown, unsafety polypectomy. However after the pathological evaluation of the resected material it is observed that invasion had not passed the stalk into the mucosa of the wall.

There were no mortality or major morbidity in our day-case study. During the early surveillance period there were 2 polypectomies with LGD, no HGD or CRC observed.

Discussion

A primary goal of colonoscopy is the detection and removal of premalignant lesions, which may lead to cancer prevention [16,17]. The harms of colonoscopy in clinical practice are uncertain [18-24]. Certain patient populations may have a higher risk of adverse events than the others such as elderly patients and ASA grade III or higher patients [25,26]. Various reports have suggested that rates may be higher than those observed in clinical trials performed by expert colonoscopists [22-24]. Despite this, after 2 years experience, there were no mortality in our day case serie. Some clinics does not require colonoscopy in elderly with out symptoms; due to costs, bowel preparation, sedation and perforation risks [4]. We did not put such limits like these and no major morbidity (perforation,acute bleeding…) had occured. According to the guidelines it is considered that any polyp, irrespective of size, to be a significant risk factor for the development of further high risk polyps or colorectal cancer [27]. We had done 168 polypectomies during the period. Polyps are defined by displasia and the varying degree displayed by different polyps is thought to explain a large degree of their different metastatic potential [28]. The revised Vienna classification is widely used to define the degree of dysplasia in the polyp (Table 4). The management of the T1 CRC lesions is based on the histology of the resected polyp [3]. According to the WHO classification G1 is well differentiated, G2 moderate, G3 poorly, G4 undifferentiated; G1-2 are regarded as low grade and G3-4 as high grade (Tables 3 & 4). The depth of the invasion is the other criteria. In pedinculated polyps, if invasion has not passed the stalk into the mucosa of the wall, no further treatment is required [6]. In sessile polyps, when invasion depth is in the superficial third of the submucosa there is no need for further treatment. Also invasion depth <3mm in pedinculated, <1mm in sessile polyps is found considerable for not having further treatment [29-32]. Also width of the tumour, lymphatic and vascular invasion are important factors for the invasion [28]. In our HGD series, 11 of 12 was safely treated by polypectomy according to these

Table 3: WHO classification recognizes 4 grades of differentiation.

Grades	Differentiation level
G1	Well differantiatied
G2	Moderate differantiatied
G3	Poorly differantiatied
G4	Undifferantiatied

Table 4: Revised Vienna classification of epithelial neoplasia for esophagus, stomach, and colon.

Category	
Category 1	No neoplasia
Category 2	Indefinite for neoplasia
Category 3	Low grade adenoma/dysplasia
Category 4	High-grade neoplasia
4.1	High grade adenoma/dysplasia
4.2	Non-invasive carcinoma(carcinoma in situ)
4.3	Suspicion for invasive carcinoma
4.4	Intramucosal carcinoma(L. Propria inv.)
Category 5	Submucosal carcinoma

criteria. It is suggested to create two groups; low risk group who are safe without further treatment, high risk group for whom surgery or further treatment should be considered. If pathological examination is not poor or undifferentiated, vascular or lymphatic invasion is not present, depth of invasion is favorable, margin of the excision is not involved (>2mm), piecemeal or incomplete resection or factors preventing adequate histological assessment of the lesions is not present; than the polyp must be considered at low risk group [3,7-15]. We have created groups as suggested and 166 of the patients were at low risk group and 2 of them were at high risk group. Only 168 of 1 patient had gone under surgical resection and we had eliminated high risks of anaesthesia in geriatric patients. With this grouping we have avoided unnecessary surveilance colonoscopies, high cost and gained labor. Instead of confused classifications; this follow-up system seems to be safe, memorable and usable for all clinics.

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