

Analysis of Factors Related to Recurrence of Colorectal Adenomatous Polyps After Endoscopic Treatment

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Objective: To study and analyze the related factors of recurrence after endoscopic treatment of colorectal adenomatous polyps. **Methods:** From March 2017 to March 2018, a total of 600 colorectal adenomatous polyps treated with endoscopy in our hospital were selected as the study objects. The clinical data of all patients were analyzed retrospectively, including gender, age, occupation, income, drinking history, smoking history, whether they were infected with *Helicobacter pylori*, polyp location, polyp number, adenoma type, adenoma base, gland Tumor diameter, atypical hyperplasia, history of diabetes mellitus, history of hypertension, dyslipidemia (cholesteremia, low-density lipoprotein, hypertriglyceridemia), treatment methods, the relationship between the above risk factors and recurrence were analyzed, and the relevant factors of recurrence of colorectal adenomatous polyps were screened. **Result:** Age, occupation, income, drinking, smoking, polyp type, polyp diameter, *Helicobacter pylori* infection, treatment, diabetes, hypertension, adenoma type, adenoma base, atypical hyperplasia and dyslipidemia were all related factors ($P < 0.05$). **Conclusion:** Patients with colorectal adenomatous polyps undergo recurrence after endoscopic treatment with age, occupation, income, alcohol consumption, smoking, polyp type, *Helicobacter pylori* infection, treatment, diabetes, hypertension, adenoma type, adenoma base, A typical hyperplasia and dyslipidemia are associated. The more the above factors occur, the greater the chance of recurrence. The corresponding preventive measures should be taken for the above factors.

Key words: Colorectal adenomatous polyp; Endoscopic treatment; Recurrence factors

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Colorectal polyp is a common clinical disease, which is a protuberant lesion caused by the protruding of the surface of the colorectal mucosa to the intestinal cavity. Among them, Paul has adenomatous polyp, proliferative polyp, inflammatory polyp and hamartomatous polyp, the most common one is adenomatous polyp of the colon, which is a benign tumor on the gland. At present, it is regarded as a precancerous lesion of colorectal cancer^{1, 2}. At the same time, with the gradual improvement of our national living standards, significant changes have taken place in the diet structure, and more and more colorectal adeno

matous polyps have occurred. Through endoscopic examination, adenomas can be found

as early as possible, and related treatment and treatment can effectively prevent the development of cancer, but the recurrence rate of patients after treatment is higher³. In this study, we analyzed the related factors of recurrence after endoscopic treatment of colorectal adenomatous polyps. The report is as follows.

MATERIALS AND METHODS

General information

From March 2017 to March 2018, a total of 600 colorectal adenomatous polyps were selected as

the study objects, including 373 males and 227 females, aged (21-85), with an average age of (57.47 ± 20.04) years.

ACI diagnostic criteria

(1) For colon cancer, the main clinical symptoms of the patient are abdominal mass,

anemia and abdominal pain, with anorexia, asthenia and emaciation. For the patient, through colonoscopy, it is found that the tumor is cauliflower like, polypoid and nodular. Through case examination, the tumor has metastasis and infiltrative growth.

(2) For rectal cancer, the main manifestations of the patients are the feeling of anus dropping, the increase of defecation times, the thinning and denaturation of feces, the bloody surface of feces, the alternation of diarrhea and constipation, and the cauliflower like, polypoid and nodular masses are found by endoscopy.

Inclusion exclusion criteria

Inclusion criteria: (1) The patients were diagnosed as adenoma by histopathology and underwent endoscopic electrocoagulation and resection of intestinal polyps; (2) The patients were prepared for intestinal preparation before colonoscopy; (3) The patients were reexamined with colonoscopy at least once after operation.

Exclusion criteria: (1) Patients with colorectal cancer; (2) Patients with familial enteritis, polyps; (3) Patients with systemic diseases such as lymphoma.

Method

Using the electronic colonoscope and high-frequency electric cutter of Fujinon type, firstly, the whole colonoscopy was carried out for the patients, and the polyp position, tumor base characteristics, polyp number and tumor diameter were recorded. Adrenaline physiological saline with content of 0.0005% was injected into the basal part until the basal part uplifted. The pathological examination was carried out for the depolyp tissue, and the pathological properties were determined. Endoscopic electrocoagulation and resection of intestine

al polyps^{4, 5}. Sex, age, occupation, income, drinking history, smoking history, body mass index, Helicobacter pylori infection, polyp position, polyp number, adenoma type, adenoma base, adenoma diameter, atypical hyperplasia, diabetes history, hypertension history, dyslipidemia (cholesterolemia, low-density lipoprotein, hypertriglyceridemia), treatment mode and recurrence the related factors were screened out¹⁶.

Statistical analysis

The data obtained in this study were included in spss22.0 software analysis, and the measurement data were expressed in $(\bar{x} \pm s)$, t-test; the count data were expressed in (%), chi square test, when $p < 0.05$, the data was statistically significant.

RESULTS

Single factor analysis

After colonoscopy, 144 cases of recurrence were found. The recurrence rate was 24%. Age, occupation, income, drinking history, smoking history, infection with Helicobacter pylori, polyp diameter, polyp number, adenoma type, adenoma base, atypical hyperplasia, diabetes history, high blood pressure history, dyslipidemia (cholesterol, LDL, hypertriglyceridemia) The treatment was related to recurrence of adenoma, the difference was statistically significant ($P < 0.05$), see Table 1 for details.

Multi factor analysis

According to logistic regression analysis, age, occupation, income, drinking history, smoking history, Helicobacter pylori infection, polyp diameter, polyp number, adenoma type, adenoma base, dyslipidemia and atypical hyperplasia were the single high risk factors for recurrence of colorectal adenomatous polyps after endoscopic treatment, the difference was statistically significant ($P < 0.05$). The high risk factors of recurrence of adenoma are over the age of, below 3000, occupation as agricultural name, smoking, drinking, more than 3 polyps, polyp diameter of more than 10 mm, infection with Helicobacter pylori, villous adenoma, non pedicled adenoma base, moderate or severe atypical hyperplasia, block resection, dyslipidemia, diabetes and hypertension See Table 2 for details.

DISCUSSION

Polyps are commonly called polyps in the digestive tract of the human body. Polyps gradually develop into adenomas in tissue, structure and shape, which is a very serious disease. According to relevant clinical studies, colorectal adenomas have a pathological change time of 5-7 years, and are often treated by "leek cutting" method, which can only cure the symptoms, but not the root. At the same time, colorectal cancer patients have many risk factors It can induce recurrence in patients ^{6, 7}. Colorectal adenoma refers to the protrusion of the surface of the rectal mucosa to the intestinal cavity, which includes inflammatory polyp, polyposis, childhood polyp and adenoma. From the perspective of case medicine, there are different contents, some of which are benign tumors, some of which are caused by inflammatory hyperplasia ^{8,9}. In the past, the treatment of colorectal adenoma was open surgery, which caused more trauma, more bleeding, longer recovery time, various complications, and seriously affected the prognosis and quality of life of patients. At present, the treatment of colorectal adenoma is mainly endoscopic electrotomy, which has little trauma to patients, the patient's bleeding volume is low, safer, and the patient recovers faster. However, because colorectal adenoma has the characteristics of recurrence and canceration, the patient needs to have regular review after surgery to determine whether there is recurrence. Once there is recurrence, timely treatment is required ^{10,11}.

Before surgical treatment, it is necessary to analyze and observe the nature of colorectal adenoma. During the examination, instruments are used to touch it. If it is very easy to bleed, it is indicated as malignant polyp, otherwise it is benign polyp; pedunculated polyp is generally tubular adenoma, with a low probability of malignant lesions; polyp generally does not appear ulcer, once ulcer occurs, it is indicated that There are malignant changes; small polyps without enlargement generally have a small probability of malignancy, otherwise, they are large; smooth and round polyps have a small probability of malignancy, and lobulated polyps have a large probabi

lity of malignancy; active polyps with pedicle have a low probability of malignancy, among which sessile and solid polyps are prone to malignancy; large polyps with low base and small head volume It is easy to have malignant lesions. Choosing appropriate surgical treatment can effectively guarantee the good prognosis of patients ^{12, 13}. Colorectal adenomatous polyps have the characteristics of canceration and recurrence. Clinically, they are considered to be one of precancerous States and also one of tumor polyps. After endoscopic resection, regular colonoscopy can detect whether there is canceration and recurrence of colorectal adenomas in time. However, there is no clear standard for the frequency of colonoscopy in clinical practice There are many missed diagnoses for patients, which are related to the distribution, shape and size of polyps. According to relevant clinical studies, the recurrence rate of patients after adenomaectomy is between 15% and 60% in about 3-5 years. Therefore, it is of key significance to master and understand the relevant factors of recurrence of colorectal adenomatous polyps after endoscopic treatment ^{14, 15}. According to the results of this study, there is no significant relationship between the recurrence of adenoma and the sex of patients, but the recurrence rate of adenoma increases gradually with the age of patients. When the age of patients is over 50 years old, the recurrence rate of adenoma is higher. At the same time, drinking and smoking will also play a key role in the recurrence of adenoma. Relevant clinical studies show that the recurrence rate of men is significantly higher than that of women Sex may be related to unhealthy living habits of men, such as drinking and smoking. *Helicobacter pylori* can cause skin metaplasia on the intestines of patients, leading to the development of atypical hyperplasia, which is the factor of adenoma recurrence. At the same time, low-income and farmers often pay less attention to their own health, do not pay attention to prevention in daily life, unhealthy living habits, leading to the recurrence rate of adenoma Higher. In this study, age, occupation, income, drinking, smoking, polyp type, polyp diameter, *Helicobacter pylori* infection, treatment, diabetes, hypertension, adenoma type,

adenoma base, atypical hyperplasia and dyslipidemia were all related factors ($P < 0.05$) for recurrence of colorectal adenomatous polyps after treatment, among which the number of polyps was more than 3 and polyps were more than 3. The high risk factors for recurrence of adenoma are infection with *Helicobacter pylori*, villous adenoma, non pedicled adenoma base, moderate or severe atypical hyperplasia, block resection, dyslipidemia, diabetes mellitus and hypertension.

CONCLUSION

To sum up, the recurrence of colorectal adenomatous polyps after endoscopic treatment is related to age, occupation, income, drinking, smoking, polyp type, *Helicobacter pylori* infection, treatment mode, diabetes, hypertension, adenoma type, adenoma base, atypical hyperplasia and dyslipidemia. The more the above factors are, the greater the recurrence rate. We should aim at the above factors. Take corresponding preventive measures for factors.

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Table 1.
Single factor analysis of recurrence of colorectal adenoma after endoscopic treatment

Factor	Happening	n	Recrudescence	χ^2	P
Age	Less than 30 years old	123	8	5.581	0.006
	30~50 years old	155	32		
	More than 50 years old	322	83		
Income	Less than 3,000 yuan	409	124	6.671	0.011
	More than 3,000 yuan	191	24		
Career	Farm name	324	75	11.547	0.023
	Citizens	276	30		
Drinking history	Yes	423	109	9.047	0.002
	No	177	21		
History of smoking	Yes	108	23	9.052	0.003
	No	492	120		
Whether it is infected with Helicobacter pylori	Yes	255	130	15.314	0.001
	No	345	32		
Number of polyps	1	390	54	5.413	0.010
	2	126	21		
	Greater than 3	84	65		
Adenoma type	Tubular adenoma tubular velvet	465	43	19.796	0.001
	Hairy adenoma	34	6		
	Adenoma	101	50		
Polyp diameter (mm)	Less than 6	340	50	13.037	0.001
	6~10	180	53		
	Greater than 10	80	59		
Adenoma base	Tidy	140	20	21.957	0.000
	Yati	286	54		
	No pedi	174	86		
Atypical hyperplasia	No, mild	495	76	15.476	0.001
	Medium and heavy	105	53		
History of diabetes	Yes	127	60	11.563	0.001
	No	473	86		
History of hypertension	Yes	476	130	8.634	0.001
	No	124	16		
Dyslipidemia	Yes	236	97	10.367	0.001
	No	364	54		
Treatment method	Whole piece resection	504	90	26.547	0.001
	Block removal	96	40		

Table 2.
Logistic regression analysis of risk factors for recurrence of colorectal adenomatous polyps after endoscopic treatment

Factor	β	SE	χ^2	P	OR	OR upper limit	OR lower limit
Age	0.332	0.124	7.263	0.008	1.396	1.778	1.096
Career	0.458	0.140	10.825	0.001	1.582	2.082	1.205
Income	0.024	0.086	7.712	0.006	1.036	1.505	1.008
Drinking history	0.364	0.074	24.407	0.000	1.438	1.661	1.246
History of smoking	0.223	0.045	21.936	0.000	1.251	1.664	1.139
Whether it is infected with Helicobacter pylori	0.094	0.047	4.043	0.044	1.001	1.204	1.003
Polyp diameter	0.143	0.028	26.357	0.000	1.093	1.491	1.093
Number of polyps	0.223	0.089	6.537	0.000	1.055	1.482	1.054
Adenoma type	0.495	0.141	12.403	0.000	1.247	2.158	1.246
Adenoma base	0.690	0.209	10.964	0.000	1.321	2.998	1.326
Dyslipidemia	0.346	0.067	32.158	0.000	1.420	3.928	1.034
Atypical hyperplasia	0.700	0.152	21.242	0.000	2.023	2.712	1.496
Diabetes	0.334	0.038	76.964	0.000	1.403	4.927	1.296
Hypertension	0.320	0.145	4.960	0.026	1.375	1.823	1.040
Treatment method	0.606	0.292	4.305	0.038	1.835	3.246	1.035