

COLORECTAL POLYPS: EVALUATION IN TWO YEARS

HOSSEIN FOROOTAN, M.D.

From the Department of Gastroenterology, Imam Khomeini Medical Center, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran.

ABSTRACT

From June 1989, to June 1991, 58 patients with GI polyps were reviewed. Except two patients who had multiple polyps, 56 had only one polyp. The size of polyps were 0.5 to 3 cm in diameter. 51 (75%) of polyps were located in the rectosigmoid region, 25 (37%) were in the rectum and 26 (38%) in the sigmoid. (Seventeen) (25%) polyps (two in right colon, four in transverse, and 11 in descending colon) were located in other regions. Patients were between nine months to 70 years old. 14 polyps were reported to be inflammatory, and 17 adenomatous. Polypectomy was done for all patients, and no massive bleeding, bacterial infection, or perforation were observed. Only five patients had slight bleeding which was treated by conservative measures.

MJIRI, Vol. 6, No. 1, 13-15, 1992

INTRODUCTION

Polypectomy with colonoscopy is the treatment of choice for most colorectal polyps.¹ There are different views on this matter,^{2,3} and appearance of polyps—malignant or nonmalignant, and pedunculated or broad-based—are the most pertinent factors. Polyps may have no signs but it is important to know if they have potential to become malignant. Experiences have shown that most colon cancers first appear in adenomas. We report our two-year experience with colorectal polyps in Imam Khomeini Hospital.

Endoscopy polypectomy, when performed following precise guidelines, has several advantages over surgical excision:

- a) lower mortality and morbidity
- b) decreased hospitalization period (in most cases it may even be unnecessary to hospitalize the patient)
- c) better patient acceptance
- d) prompt recovery, with no loss of working capacity.

Surgery entails an overall complication rate of up to 5-7% and a mortality rate ranging from 0.2-3%, whereas the overall complication rate for endoscopic polypectomy is 0.5-3% and mortality from 0.06%-0.1%.

MATERIALS AND METHODS

Fifty-eight patients with colorectal polyps were studied in the Department of Gastroenterology, Imam Khomeini Hospital, Tehran University of Medical Sciences, during a two-year period (June 1989 to June 1991).

Colonoscopic polypectomy was performed after colon preparation, with wire snares and monopolar electrosurgical cautery units. All polyps were removed by proctosigmoidoscopy or colonoscopy.

To be well acquainted with the instruments, and especially with the snare loop in the electrosurgery unit is vital. The snare must be checked before each use and one must ensure that in the closed position it enters for at least one centimeter (preferably 1.5 cm) into the polyethylene outer tubing. Also the current must be checked with the tip of the snare on the patient's plate—only a small spark must be seen during the procedure. We consider the use of a coagulating current preferable to a mixed one. A bicap apparatus must be part of available instruments for further coagulation on a bleeding stalk and adequate resuscitation facilities must be available.

Colorectal Polyps

RESULTS

Fifty-six of 58 patients (96%) had single polyps. One patient had two, and one had seven polyps. Fifty percent of polyps were pedunculated.

The youngest patient was nine months and the oldest was 70 years of age (mean 23 years). Table I shows the age distribution of the patients. The most common age for this type of polyp was 10-20 years (50%), which is much lower than that reported in other countries.²¹

Hematocrit ranged from 27% to 50% (mean 39.8). Most patients had been admitted for rectal bleeding or investigation of occult blood. Rectal examination revealed rectal mass in six patients (15%). There was no family history of polyps in our patients. Clinical features of patients are shown in Table II. One month after

Table I. Age distribution of patients.

| age (Yrs) | % | T.No. | Male | Female |
|-----------|----|-------|------|--------|
| 1-10 | 34 | 20 | 11 | 9 |
| 10-20 | 30 | 17 | 13 | 4 |
| 20-30 | 80 | 5 | 4 | 1 |
| 30-40 | 8 | 4 | 4 | — |
| 40-50 | 3 | 2 | 2 | — |
| 50-over | 17 | 10 | 7 | 3 |
| | | 58 | 41 | 17 |

Table II. Clinical Features

| | |
|-----------------------------|-----------------------|
| Male/Female | 41/17 |
| Age (mean) | 23 yr (range 9m-70yr) |
| Hematocrit (mean) | 40 (range 27-50) |
| Symptoms | |
| Occult positive blood | 55 (95%) |
| Bright red blood per rectum | 26 (44%) |
| Masson rectal examination | 6 (15%) |
| Malignancy | 1 (2%) |
| positive family history | — |

Table III. Distribution, Morphology, and Size

| | Cm | | | |
|------------------------------|-----------------|-------------|------------|-----------|
| | 0.5-1 (n=12) | 1-2 (19) | 2-3 (6) | >3 (3) |
| Rectum. (N=25)(38%) | | | | |
| Sessile | 5 | 6 | 1 | — |
| Pedunculated | 5 | 5 | — | 3 |
| Sigmoid (N=26)(39%) | | | | |
| Sessile | 8 | 3 | 2 | — |
| Pedunculated | 3 | 7 | 2 | 1 |
| Descending Colon (N=11)(16%) | | | | |
| Sessile | 2 | 4 | — | — |
| Pedunculated | 4 | 1 | — | — |
| Transverse colon (N=4)(6%) | | | | |
| Sessile | — | 2 | — | — |
| Pedunculated | — | 1 | 1 | — |
| Right. Colon (N=2)(3%) | 1 | — | 1 | — |

polypectomy occult blood was negative in 56 patients.

Table III shows the distribution, morphology and size of the polyps. Most of the polyps were in the rectosigmoid (90%), 26 polyps at this area were pedunculated, and 25 were sessile. Nine polyps were in the descending colon (16%), four in the transverse colon and two in the ascending colon. Nearly 50% of the polyps were pedunculated. The size of polyps ranged from 0.5 to 3 cm but most of the polyps were less than 2 cm in diameter.

Pathology

Table IV shows the histopathology of the 66 polyps removed. Most of the polyps were inflammatory and adenomatous.

There was only one malignant melanoma. There was no evidence of malignancy in remaining polyps.

Table IV. Results of pathological investigation of polyps.

| Result | No. | % |
|-----------------------------|-----|-----|
| Inflammatory | 14 | 21 |
| Adenomatous | 23 | 34 |
| Juvenile | 13 | 20 |
| Hyperplastic | 4 | 06 |
| Villous Adenoma | 5 | 7 |
| Hyperplasia Fibroepithelial | 2 | 3 |
| Hamartoma | 2 | 3 |
| Angiomatosis | 1 | 1.5 |
| Melanoma (Malign.) | 1 | 1.5 |
| Inflam + Adenom. | 1 | 1.5 |

DISCUSSION

A gastrointestinal polyp is a discrete mass of tissue that protrudes into the lumen of the bowel.

A polyp may be characterized by its gross morphology, the presence or absence of a stalk, and whether it is one of multiple similar masses elsewhere in the gut.

Because of their protrusion into the lumen of the gut and the stresses of the fecal stream to which they are subject, polyps may cause various symptoms. Thus, they may ulcerate and bleed; abdominal pain may result when a peristaltic wave propels a polyp downstream; large polyps may even obstruct the intestine. There were five villous adenomas in our patients (8%). In western countries villous adenomas account for three to ten percent of adenomatous polyps. Mild dysplasia may be found in 70 to 80 percent of adenomatous polyps, moderate dysplasia in 10 to 20 percent, severe dysplasia in five to 10 percent and invasive carcinoma in five to seven percent.⁴⁻⁶

REFERENCES

- 1- Gyorffy EJ, et al: Large colorectal polyps: colonoscopy, patholo-

- gy, and management. *American J Gastroenterology*. 84, 898-905, 1989.
- 2- Webb W, Mc Daniel L, Jones L: Experience with 1000 colonoscopic polypectomies. *Ann Surg* 2:1; 626-32, 1985.
 - 3- Sturle JP, Petrelling Herreral C: Tall colorectal villous and tubulovillous adenomas equal to or greater than four centimeters. *Ann Surg* 1988, 202:65-71.
 - 4- Muto T, Bussey HJ R, Morson B C: The evolution of cancer of the colon and rectum. *Cancer* 36:2251, 1975.
 - 5- Shinyo H. colonic polyps. *Ann Surg* 190: 679, 1979.
 - 6- Konishi F, Morson B C: Pathology of colorectal adenoma: a colonoscopy survey. *J Cline Pathol* 35:830, 1982.
 - 7- Yatan MH, Stalberg H: The prevalence of polyps of the large intestine in Oslo: an autopsy study. *Cancer* 94:815, 1982.
 - 8- Eide TJ, Stalsberg H: Polyps of the large intestine in Northern Norway. *Cancer* 42: 2839, 1978.
 - 9- Ekelund A, Lindstrom C: Histopathological analysis of benign polyps in patients with carcinoma of the colon and rectum. *Gut* 15:654, 1978.
 - 10- Mughal S, Filip MI, Jass JR: A comparative ultrastructural study of hyperplastic and adenomatous polyps, incidental and in association with colorectal cancer. *Cancer* 48: 2746, 1981.
 - 11- Correa P, Strong JP, Johnson WD Pizzolato P, Haensted W: Atherosclerosis and polyps of colon. Quantification of precursors of coronary heart disease and colon cancer. *JChron Dis* 35:313, 1982.
 - 12- Stemmermann GN, Heilbrun LK, Nomara A, Yano K, Hayashi T: Adenomatous polyps and atherosclerosis, autopsy study of Japanese men in Hawaii. *Int J Cancer* 38: 78, 1986.
 - 13- Sobin LH: The histopathology of bleeding from polyps and carcinoma of the larger intestine. *Cancer* 55:577, 1985.
 - 14- Macrae F, St. John DJBR; Relationship between patterns of bleeding and Hemocult sensitivity in patients with colorectal cancer or adenomas. *Gastroenterology* 82;991, 1982.
 - 15- Herzoy P, Holteromuller K, Press J, Fischer: Fecal blood loss in patients with colonic polyps. *Gastroenterology* 83:957, 1982.
 - 16- Zucker GM, Madura MJ; The advantages of the 60 cm. flexible sigmoidoscopy over the 6 cm flexible sigmoidoscopy. *Gastroentero-Endosc* 3:59, 1984.
 - 17- Sarles HE J, Sanwski RA. Haynes: The long and short flexible sigmoidoscopy. Does it matter? *Am J Gastroenterology* 81:369, 1986
 - 18- Ott DJ, Chen YM, Gelfand DW, Wu WC, Munitr HA Single-contrast vs double-contrast barium enema in the detection of colonic polyps. *AJR* 146: 993, 1986.
 - 19- Williams CB, Hunt RH, Loose H, Riddell RH, Sakai Y, Swarbrick ET: Colonoscopy in the management of polyps. *Br J Surg* 61-673, 1974.
 - 20- Simen JB: Occult Blood. Screening for colorectal carcinoma critical review. *Gastroenterology*. 88:82, 1985.
 - 21- Winawer SJ: All progress report on controlled trial of fecal occult blood testing for the detection of colorectal neoplasm. *Cancer* 45:2809 1980.
 - 22- Gilbertson A, et al: Preliminary report of the results of the occult blood study. *Cancer* 45:2809, 1980.
 - 23- Gyorfy EJ, Montrecl JSA, et al: Large colorectal polyps. *American J. Gastroenterology*. 84, (8): 898 1989.