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EFFICACY OF POLYPOID LESIONS OF GALLBLADDER IN TERM OF MANAGEMENT

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Abstract:

Objective: *To evaluate the results of all patients with polypoid lesions of the gallbladder.*

Study design: *It is a retrospective observational study.*

Place and Duration: *In the West Surgical Department of Mayo Hospital Lahore for one year duration from July 2017 to July 2018.*

Methodology: *All cases who presented with polypoid gallbladder lesion in the previous period were included. There were 26 patients older than 16 years who were treated in the previous period.*

Results: *26 total patients presenting with polypoid gallbladder lesions. Nineteen female and 7 male, male-female ratio were 2.9: 1. Of the 26 histopathologies that suggested 21 cholesterol polyps, 4 had real polyps. All true polyps were greater than ≥ 10 mm. One patient did not show polyps with changes in the chronic systemic crisis. In 12 (46%) patients, gallstones were related.*

Conclusions: *The risk of gallbladder malignancy due to polypoid lesion discovered by chance is very rare. Polypoid lesion smaller than 6 mm does not require any treatment, it only requires clinical follow-up. Polypoid lesions 8 mm or more above 50 years of age and lesions larger than 10 mm at any age require laparoscopic cholecystectomy. Gallbladder polyps associated with gallbladder stones also require surgical excision. Simultaneous symptomatic polypoid lesions with biliary colic also require surgical treatment.*

Key words: *gallbladder, adenocarcinoma, cholesterol polyp.*

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INTRODUCTION:

The "polypoid lesions of the gallbladder" represent a broad spectrum of findings with increased lesions on the gallbladder mucosal surface. GB polypoid lesions are classified as false polyps (adenomas, adenomatous hyperplasia, cholesterol polyps, inflammatory polyps) and true polyps. True polyps or neoplastic polyps are divided into malignant adenocarcinomas and benign adenomas. GB polypoid lesions are asymptomatic most of the time. Easy accessibility and extensive use of ultrasound (USG) led to an increase in the diagnosis and detection of GB polypoid lesion, but its treatment is still a clinical dilemma. The prevalence of Polipoid GB lesions is 4-7% in healthy individuals and 2-12% in cholecystectomy samples.

The large number of these lesions are not neoplastic and represent inflammatory or cholesterol polyps, and many lesions in the US are termed GB polyps. They show small calculations in cholecystectomy.
However, in rare cases, these lesions may be malignant and neoplastic transformation in adenocarcinoma is a significant concern. Polyps with a diameter of 10 mm or more reported that the likelihood of malignancy increased and the age of the patient increased with the thickening or invasion of the polyps, simple polyps and neighboring walls. Minimum 11 mm in size is the best indicator of malignancy. However, most of the diagnosed polyps are smaller than 11 mm and are usually too small to allow for the correct recognition of additional properties, such as the thickening of the adjacent wall or acoustic morphology. The polyp may be single or multiple, usually less than 10 mm. They have no preference for any area of the gallbladder and adhere to the gallbladder wall. Adenomas also do not have a predilection site in the gallbladder and may be associated with gallstones or cholecystitis. In good hands, ultrasound plays an important role in the detection of GB polypoid lesions. It represents a mass fixed to the wall of the gallbladder without acoustic shadows. Computed tomography is also an important tool in the diagnosis. Even in high-resolution images, the difference between benign and malignant lesions is very difficult.

MATERIALS AND METHODS:

This retrospective observational study was held in the West Surgical Department of Mayo Hospital Lahore for one year duration from July 22017 to July 2018. Patients aged 16 years and older were selected for the analysis. There were 26 patients with gallbladder polyps who were done with laparoscopic or open cholecystectomy and detected by ultrasonography. We analyzed the demographic data, symptoms, radiographic findings, operative and histopathological findings of the patients.

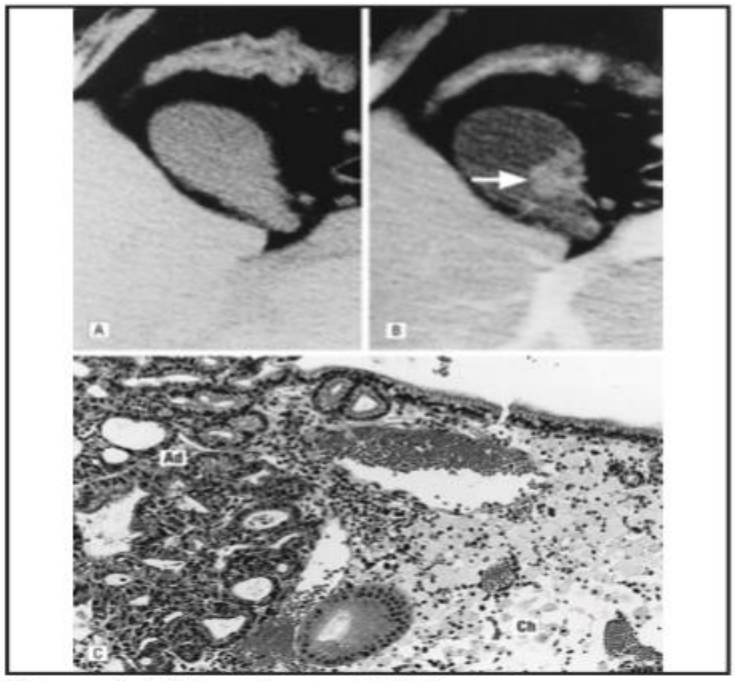

Figure 3: *CT Scan showing GB Polyp*

RESULTS:

There were 26 patients with GB polypoid lesions who underwent laparoscopic or open cholecystectomy diagnosed on USG. One patient (3.8%) had no polyps from the gallbladder specimen. Nineteen (73%) of the subjects were female and male were 7 (27%) . The 40 years was the mean age (range 23 to 70 years). Eleven patients (42%) had ambiguous abdominal symptoms of epigastric disorder. The majority of Polipoid GB lesions, namely 21 patients (80%), were pseudopoleps (cholesterol, inflammatory or cholesterol polyps).

Table 1:

	Total N=26	Pseudo polyp N=21	Benign adenoma N=3	Adenocarcinoma N=1
Sex				
Male= 7 (27%)	7	4	0	0
Female= 19 (73%)	19	17	3	1
Age				
<50y = (69%)	18	18	2	0
>50y = (31%)	8	3	1	1
Polyp size				
1-5 mm 11(42%)	11	11	0	
6-9 mm 10(38%)	10	9	1	
>10 mm	4	1	2	1
Number of Polyps				
Single= 84%	22	18	3	1
Multiple=12%	3	3		
Gall Stones				
Yes =46%	12	11	1	
No = 54%	14	10	2	1

There were 4 real polyps (15%). All 4 GB polypoid neoplastic lesions were> 10 mm in size and only one suspected malignancy (15 mm polypoid adenocarcinoma). In 11 patients (42%), polypoid was equal to or less than 5 mm in GB, 10 in 6-9 mm and 5 in> 11 mm. 22 (85%) had a single polyp. Stone was also present in 12 patients (46%). All patients recovered without complications in the postoperative period.

DISCUSSION:

Polipoid GB lesions are usually asymptomatic or the symptoms are uncertain and non-specific. Therefore, it is more frequently detected by chance and more often due to the use and extensive use of ultrasound (USG). The clinical significance of GB polypoid lesion is "malignant adenoma-adenocarcinoma" such as potential malignant transformation and colon cancer. Due to the poor gallbladder cancer prognosis, risk factors and early detection of malignant polyps should be understood for on time management.

A study in the United States was held to see the natural history of the gallbladder polyp. 346 patients(mean age, 52.06 years, range, 21-92 years) with GB polyp were selected for the study. There were 157 males (46%) and 189 females (54%). In 149 patients (43%) (mean 5.4 years, 2 to 11.5 years). The polyp phase was one (1%) increase, eight (5%) reduction, 90 (60%) polyps stable, and dissolved in 50 (34%). Forty patients (12%) were administered polyps with polyps without a stone or polypoid lesion, 13 (31%) of them were polypoid lesions, 24 (57%) and five (12%) revealed cholecystectomy. Clinical follow-up (mean 8 years, 5 to 10.4 years) was performed in 155 patients (45%).

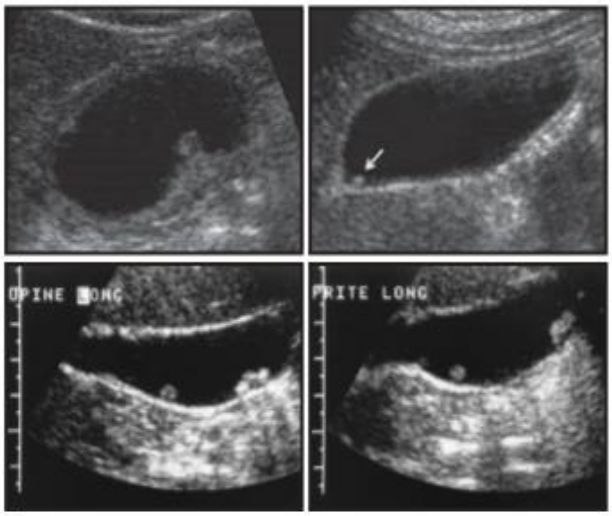

Figure 1: *Ultrasound Showing GB Polyp*

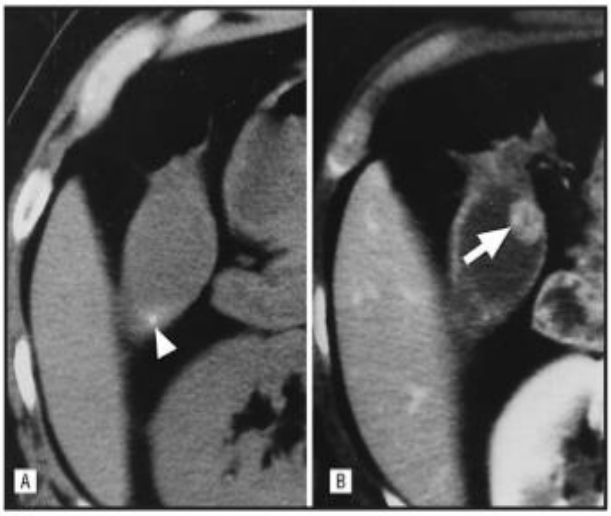

Figure 2: *CT Scan showing GB Polyp*

None of the patients had clinical evidence of GB-related disease. Generally, 346 patients had no malignancy per GB. The mean size of the polyps was 5.0 mm (range, 1-18 mm). No neoplastic polyps of 1 to 6 mm were detected, a neoplastic polyp of 7 to 9 mm, and two neoplastic polyps larger than 10 mm were observed. The management of GB polyps is currently concerned for the presence or development of GB carcinoma. The overall prognosis for GB cancer is poor, the 5-year survival rate is about 10%, but GB carcinoma is rare and the annual incidence is 1-2. 5 cases per 100 000 people. Therefore, there will be almost no polyp cancer. However, the current guidelines show that the United States is a follow-up for cholecystectomy for polyps smaller than 10 mm and 10 mm or more. This strategy can lead to many unnecessary follow-up exams in the United States. Most of the literatures, especially for those less than 6 mm, do not show progression of GB polyps to cancer. Second, it is still unknown whether GB adenomas are the precursors of GB cancer. In the development of colon cancer, a number of adenoma-carcinomas are considered good, but the relationship between GB adenomas and carcinoma is unclear. Adenoma-carcinoma sequence samples were examined for cholecystectomy, and seven adenomas and 15 carcinomas were found to be malignant change with adenomatous residues. Kozuka et al. However, all adenomas with malignant changes were greater than 12 mm. In addition, other authors preferred a dysplasia-carcinoma pathway with dysplasia secondary to chronic inflammation. Molecular studies have shown that genetic mutations common to GB cancer are not present in adenomas. In addition, the pathological evaluation of 196 GB revealed a remnant of carcinomas, opposing an early adenomatous sequence of adenoma-carcinoma.24

CONCLUSION:

The risk of malignancy per GB caused by small polyps detected by chance is extremely low. In general, it has been found that GB polyps incidentally do not require surgical treatment of 6 mm or less in young patients. These patients should be followed only from the USA. However, the size of the threshold, follow-up interval, and overall follow-up time of the polyps should be discussed.

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