



A Study Of Series Of Patients Of Gall Bladder Polyp In A Tertiary Care Centre In Asia

¹Mohammad Afzal-ud-Din, ²Mohammad Muttahir Uddin, ³Naseer Ahmed Awan, ⁴Mufti Mahmood Ahmed, ⁵Shugufta Aziz, ⁶Syed Badir Duja, ⁷Quratul Ain

MBBS, ¹MS, MRCS, Consultant, ³MS, Professor, ⁴MS, MCh, Professor, ^{2,5,6,7}General Practitioner

^{1,3,4}Department of General and Minimally Invasive Surgery, Govt Medical College, Srinagar

***Corresponding Author:**

Dr. Mohammad Afzal ud din

Lecturer, Department Of Surgery, Government Medical College, Srinagar

Type of Publication: Original Research Paper

Conflicts of Interest: Nil

Abstract

Aim: Gall bladder polyp is a disease entity wherein a diagnosis at an early stage (at an asymptomatic and/or premalignant stage)is important because its potential complication gall bladder cancer is usually diagnosed at a very late stage.We present a profile of 27 patients of gall bladder polyp in our study.

Material and Methods: we did a prospective analysis in which we followed these patients over a period of 3 years. This group of patients who were diagnosed to have gall bladder polyp from march 2018 to march 2019 were followed. Then they were followed upto feb 2022.

Results =in total 27 patients were diaganosed and followed. We found that males were affected more than females(ratio of 18:9).we observed that it is a disease of rising age(more in people in whom the age is more than 40). 33 percent patients had associated gall stones.ony 03 patients had a single polyp each, rest all had multiple polyps. 15 out of 27 patients got operated. One patient out of the 15 operated patients had malignant changes on the histopathology of gall bladder polyp.

Conclusion: this entity of gall bladder polyp should be always evaluated to its full and followed whenever necessary.

Keywords: Gall bladder polyp, cholelithiasis, cholesterosis, malignancy,

Introduction

A gall bladder polyp is a projection into the gall bladder lumen. It can be true neoplastic growths or pseudopolyps of cholestrol balls. They can be symptomatic or asymptomatic. Or can be found incidentally on ultrasonography. Its malignant potential is a problem, so a close watch on it is important.

Material And Methods

All the patients with gall bladder polyps diaganosed from march 2018 to march 2019 were included and followed. The patients who had been diaganosed before March 2018 and were diagnosed to have polyps on histopathology on a specimen of laparoscopic cholecystectomy were not included.

Those who had already been diaganosed to have carcinoma of gall bladder were also excluded. Those patients who were diaganosed after March 2019 were not included in the study.

Results

Table 1 shows the age pattern in such patients showing that more patients were aged beyond 40 years. Table 2 shows that males were more affected than females. Table 3 shows that the stones were associated in only 33 percent of patients. Table 4 showing that 11 percent patients had a single polyp each , rest of the patients had multiple polyps. Table 5 shows that 56 percent patients got operated whereas 44 percent remained unoperated. Table 6 shows majority of patients who got operated(60

percent) belonged to the category who had stones associated, and all the patients with single polyp got operated. Table 7 shows that after laparoscopic cholecystectomy was done, on histopathological examination only 20 percent of the patients had true polyps (03 patients out of 15 operated patients), rest

of the patients had cholestorosis. Table 08 shows that in one patient out of 15 operated patients, malignant changes were detected. Table 9 shows that out of 27 patients, 01 patient had a polyp in the small bowel and one patient had a polyp in the large bowel.

Table 01 showing age distribution of patients

Age	Number	Percentage
Less than 40	9	33
More than 40	18	67

Table 02 showing sex distribution of the patients

Sex	Number	Prcent
Males	18	67
Females	09	33

Table 03 showing the number and percent of patients in whom stones were associated

Gall Stones	Number	Percent
Associated	09	33
Not associated	18	67

Table 04 showing the number of polyps in various patients

Number of polyps	Number of patients	Percent
Single polyp	03	11
Multiple polyps	24	89

Table 05 showing the number of patients who underwent the surgery

Operat ion status of patients	Number	Percent
Operated	15	56
Unoperated	12	44

Table 06 showing reasons for operation in various ptiens

Reason for operation	Number	Percent of operated patients
Big polyp	03	20

Multiple Small but symptomatic polyps	03	20
Polyp where stones were associated	09	60

Table 07 showing actual status on gross examination on operation in operated patients after the laparoscopic cholecystectomy was done

Polyp or cholestorosis	Number	Percent of operated patients
Polyp	03	20
Cholestorosis	12	80

Table 08 showing the number of patients in whom malignancy was detected in the polyp on histopathology after the surgery

Malignancy	Number	Percent
malignancy detected	01	08
malignancy not found	14	92

Table 09 showing incidental finding of polyps at other places

Associated polyps	Number	Percent
Small bowel	01	0.27
Large bowel	01	0.27

Discussion

Since the gall bladder polyp is potentially a problematic condition, more and more knowledge regarding this condition needs to be spread among the healthcare personel and the public in general.

There are certain theorotically proposed risk factors for gall bladder polyp formation like , FAP,Peutz Jeghers syndrome , Gardner syndrome, or Hepatitis B. We have no such patient in our series. Though there may be a risk due to these factors, we have not been able to find such correlation in our series.

We have found that none of our patient had diabetes. It has also been accepted universally that obesity,weight loss and diabetes have no bearing on the etiology of gall bladder polyps (1) (2)

The most common type of gall bladder polyps are pseudo or cholesterol polyps . These form 60-90

percent of gall bladder polyps. They are not true neoplasms but are cholesterol deposits (or deposits of bile salts) which form projections . Such polyps carry zero risk of developing malignancy. These polyps are usually multiple and rarely exceed 1 cm. In our series we found that 80 percent patients had cholesterosis . Our findings correlate well with the literature. It has been seen that 2-12 percent of routine gall bladder specimens have polyps but true adenomatous polyps are seen in less than 0.5 percent of specimens.

Inflammatory polyps exhibit inflammation of gall bladder wall with rokitansky bodies. They represent 5-10 percent of all gall bladder polyps. They associated with repeated bouts of cholecystitis and acute biliary colic. They also carry zero percent risk of cancer.

The adenomatous polyps are considered neoplastic. They are often associated with stones. True adenomatous polyps show glands on histopathology. They are rare and are often associated with gall stones. They range between 5-20 mm in size. Once the polyp reaches the size of greater than 1 cm, laparoscopic cholecystectomy should be considered, because the chances of malignancy rise above 1 cm. Malignant polyps tend to be singular and more than 2 cm in diameter (3) (4).

Gall bladder polyp can present as a mass also (5) but in our case none of the patients had a palpable mass.

We have found that in our study the male to female ratio is 2: 1. This is in agreement with other studies whereby the incidence has been found more in men (6)(7). By saying so we can not say that gall bladder polyp are more dangerous in males, only the incidence is higher. We do not know the cause for this.

None of our patients had sclerosing cholangitis. It has been recommended that regardless of size, any gall bladder polyp in a patient with primary sclerosing cholangitis should be considered for cholecystectomy (8).

Adenomyomatosis is true polyp disease which is more common. It is classically a benign lesion of fundus of gall bladder. However recent findings suggest these do have premalignant potential. As written earlier malignant polyps tend to be singular and more than 2 cm in diameter (3) (4).

In our study we found that gall stones were associated with 33 percent of cases only. The recommendation that in the presence of gall stones gall bladder polyp has to be evaluated more carefully because gallstones are both a risk factor and cause for interference (9). They interfere in the radiological evaluation.

For defining the malignant potential many factors have been postulated like size of the polyp, age of the patient, etc. There is a EUS (endoscopic ultrasound) scoring in place (10). We have not evaluated any patient by EUS scoring in our study.

Ultrasound features have been important in predicting the potential malignancy. It has been found that there is a good correlation between size of gall bladder polyp on usg and the size on the histopathological exam (11).

Our approach to the those patients who were not operated was to follow them up by ultrasonographic exam every 6 months. There is no specific recommendation like that but there it has been documented that such patients should be followed by ultrasonography of abdomen every 6-12 months (12)

It has been recommended that it would be more beneficial for patients if a flexible approach for follow up is used rather than fixed guidelines (13).

The percentage of patients who got operated for polyps by laparoscopic cholecystectomy in our series is around 50 percent, which seems to be high as compared to other parts of the world. It means some gall bladders were removed unduly. The main causative factor for that is our system of healthcare. If the patient comes to know that his problem has a potential of malignancy, he wants to get rid of the gall bladder before it is too late. Even if he is refused operation in the government sector he will get himself operated in the private sector. Or else he will feign symptoms to categorise this problem as symptomatic gall bladder polyp. It seems to be rather reasonable in our system where far-flung areas lack adequate healthcare facilities.

We have seen that out of 27 patients one had a polyp in small bowel and one had polyps in large bowel. We do not know whether there is any correlation so we can not draw any conclusions in this context. In this context it is pertinent to mention that genetic studies have been suggested when there is a pointer towards family history of this disease (14). May be in future it is possible to find some genetic connection to this problem.

Conclusion

The primary goal in the management of gall bladder polyps is to prevent the development of a carcinoma of gall bladder. So better understanding and extended investigations into the risk factors for gall bladder polyps are necessary for proper treatment of patients. Also it would be more useful to make a flexible follow-up plan on logical grounds than fixed guidelines.

References

1. Lee H, Kim K, Park L, Cho H, Gwak G, Yang K, Bae, B N., Kim HJ, Kim YD; preoperative predictive factors for gall bladder cholelithiasis

- polyp diagnosed after laparoscopic cholecystectomy for polypoid lesions of gall bladder; *Ann Hepatobiliary Pancreat Surg* 2016 Nov;20(4) 180-186
2. Liu H W, Chen CY, Ovolactovegetarian diet as a possible protective factor against gall bladder polyp in Taiwan., a cross sectional study, *ci ji yi, xue, za, zhi,*, 2019, jan-mar; 31(1);29-34
 3. Sarici IS, Duzgun O,.Gallbladder polypoid lesion more than 15mm as indicator of T1b galbladder cancer risk: *Arab J Gastroenterol* 2017, Sep ,18(3);156-158
 4. Wu T, Sun Z, Jiang Y, Yu J, Chang C, Dong X,Yan S. strategy for discriminating cholesterol and premaliognancy in polypoid lesions of the gall bladder; a single centre retrospective cohort study. *ANZ J Surg* 2019 Apr; 89(4); 388-92
 5. Chang KL. Estores DS, ;upper gastrointestinal conditions; gall bladder conditions, *FP Esent.*2017; jul ;458 ; 33-38
 6. Matos AS, Baptista HN, Pinheiro C., Martinho F, Gall bladder polyps, how should they be treated and when, *Rev Assoc Med Bras*, 2010;56;318-21
 7. Kim SY, Lee HS, Lee YS, Chung KW, Jang BK, Chung WJ, Prevalance and risk factors of gall bladder polyp in adults living in daegu and gyeongbuk provinces; *Korean J Gastroenterol* 2006: 48;344-50
 8. Leung UC, Wong PY, Roberts RH, Koea JB, gall bladder polyp in sclerosing cholangitis ; does the 1-cm rule apply. *ANZ J Surg* 2007;77;355-7
 9. Park JY, Hong SP, Kim YJ, Kim HJ, Kim HM, Cho JH, etal; long term follow up of gallbladder polyps; *J Gastroenterol Hepatol* 2009; 24; 219-22
 10. Choi WB, Lee SK, Kim MH, Seo DW, Kim HJ, Kim DI, Etal, a new strategy to predict the neoplastic polyp of the gb based on a scoring system using EUS; *Gastrointest Endosc* 2000;52 ; 372-9
 11. Escalona A, Leon F, Bellolio F, Pimental F,,Guajardo M,Gennero R etal; gall bladder polyp: correlation between ultrasonography and histopathological findings.; *Rev Med Chil* 2006,134;1237-42
 12. Gallahan WC, Conway JD; Diaganosis and management of gall bladder polyps ; *Gastroenterol Clin North Am* 2010, ; 39; 359-67
 13. Yang LP, Yang ZL, Tan XG, Miao XY, Expression of annexin A1and annexin A2 and its significance in benign and malignant lesions of gb.; *Zhonghua Zhong Liu Za Zhi*, 2010; 32;595-9
 14. Canturk Z, Senturk O, Canturk NZ, Anika YA, Prevalence and risk factors for gall bladder polyps. *East Afr Med J*, 2007; 84 :336-41.