



Histopathological spectrum of cholecystectomy specimen in Government Medical College Jammu - a hospital based study.

Pathology

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ABSTRACT

Introduction- Gall bladder is the organ that stores and concentrate the bile helps in the digestion of fat .It gets affected by a variety of pathological processes.It has a wide spectrum of diseases ranging from congenital anomalies ,gallstones and its complications,non inflammatory,inflammatory to neoplastic lesions.

Aim- To study the various histopathological; lesions involving the gall bladder.

Materials and Methods-This was a prospective study of 1 year from January 2016 to December 2016,in the department of pathology,GMC jammu. H&E stained sections were examined microscopically.

Result- A total of 800 specimens were received during the study period .The age of the patients ranged from 8 years to 80 years with a mean age of 42 years.Peak age incidence was seen between 30 to 40 years with 220 cases(27.5%) recorded during the decade.Male to female ratio ranged from 1: 4.Females 600 cases were more common than males 200 cases. Most common histopathological spectrum seen was chronic cholecystitis 643 cases(80.4%) . Out of which 351 cases were found to be associated with cholelithiasis . Other lesion were Metaplasia including pyloric gland metaplasia and intestinal metaplasia 64(8%) cases , cholesterosis 43(5.3%) cases, Xanthogranulomatous cholecystitis 48(6%) cases, Acute cholecystitis 1 case (0.25 %), Adenocarcinoma 1 case(0.25%). Most of the patients (90%) presented with history of pain right hypochondrium followed by dyspepsia and non specific symptoms.

Conclusion -Chronic cholecystitis is the most common histological entity.Association with stones is seen in majority of patients resulting into variety of mucosal alterations and lesions.

KEYWORDS:

Cholecystectomy,Chronic cholecystitis.

Introduction

Gall bladder is the organ that stores and concentrate the bile helps in the digestion of fat.It is among the most commonly resected organs and no.of cholecystectomy has increased to more than 50% in the past decade (1).It gets affected by a variety of pathological processes.It has a wide spectrum of diseases ranging from congenital anomalies ,gallstones and its complications,non inflammatory,inflammatory to neoplastic lesions.Cholelithiasis appears to be increasing in incidence over past couple of decades in india and western world due to increased intake of fatty and high calorie diet,increased alcohol consumption and obesity. Carcinoma gall bladder carries one of the worst mortalities.Due to poor socioeconomic status with less access to proper health facilities,major fraction of patients may escape early detection.

Every cholecystectomy specimen should be routinely examined carefully to avoid missing a diagnosis.

AIM- To study the various histopathological; lesions involving the gall bladder.

Materials and Methods

This was a prospective study of 1 year from January 2016 to December 2016,in the department of pathology,GMC jammu.All the specimens were received and fixed in 10% neutral buffered formalin and embedded in formalin. Three full sections were included from fundus ,body,neck of gall bladder.In addition sections were taken from any grossly abnormal area,if seen.H&E stained sections were examined microscopically.

Result

A total of 800 specimens were received during the study period .Specimen received included laproscopic ,open cholecystectomy and partial resected specimens.The age of the patients ranged from 8 years to 80 years with a mean age of 42 years.Peak age incidence was seen between 30 to 40 years with 220 cases(27.5%) recorded during the decade.

Male to female ratio ranged from 1: 4.Females (600 cases)were more common than males (200 cases).

Most common histopathological spectrum seen was chronic cholecystitis 643 cases(80.4%) . Out of which 351 cases were found to be associated with cholelithiasis .Among female patients out

of 600 , 390 cases (65%) showed association with stone whereas in males 110cases (55%) with cholelithiasis were seen. Other lesion were Metaplasia including pyloric gland metaplasia and intestinal metaplasia 64(8%) cases , cholesterosis 48(6%) cases, Xanthogranulomatous cholecystitis 43(5.3%) cases, Acute cholecystitis 1 case (0.25 %), Adenocarcinoma 1 case(0.25%). Adenocarcinoma of gall bladder was a moderately differentiated adenocarcinoma Stage II (T2NxMx) .

Most of the patients (90%) patients presented with history of pain right hypochondrium followed by dyspepsia and non specific symptoms.

Discussion

In our study the age of the patients ranged from 8 years to 80 years with a mean age of 42 years.. Similar to study done by Verma R et al (1) wherein age range of 11 years to 90 years was seen with mean age of 44.5 years. Peak age incidence was seen between 30 to 40 years with 220 cases(27.5%) recorded during the decade.This was comparable to study done by Shah N et al (2) where 30.1% cases were seen during this decade.similar findings were seen in study conducted by Prasaad PR et al (3), Verma R et al (1),Kumari NS et al (4).

Male to female ratio ranged from 1: 4.Females (600)cases were more common than males(200) cases.This was comparable to study done by Rahul et al (5),Asuquo et al (6),Tantia et al (7) and John et al (8).

Most common histopathological spectrum seen was chronic cholecystitis 643 cases(80.4%) . This was comparable to study done by Kumari NS et al (4) ,kumbhakar et al (9),Shah H et al (10) wherein chronic cholecystitis was the commonest histopathologic findings seen (81%) (86.25%),(82.25%) respectively. Out of 643 cases of chronic cholecystitis , 351cases(54.5%) were associated with gallstones. Among female patients out of 600 , 390 cases (65%) showed association with stone whereas in males 110 cases(55%) out of 200 cases with cholelithiasis were seen. Kumbhakar D et al (9) found the gall stone association in 447 cases(67.3%) out of total 664 specimens. Seventy percent (70%) of female patients were associated with gallstone whereas and among males (59%) cases had gall stone association similar to that found in our study. Female sex hormones and sedentary habits of most women in india exposes them to factors that possibly promote the formation of gallstones. Shah N et al (2) also found a greater association of gallstone with chronic cholecystitis in females than in males.

Second most common lesion was metaplasia including pyloric gland metaplasia and intestinal metaplasia 64(8%) cases .Out of 64cases ,34 cases(53%) showed pyloric gland Metaplasia and 30 cases (47%)had intestinal metaplasia. 60 cases(94%) out of 64 cholesterosis patients had association with gallstones.Similar findings were seen in study done by Mondal Bet al (11)wherein 51.3% cases of pyloric gland and 48.7% cases with intestinal metaplasia were seen whereas Shan N et al(2) in his study found that all the cases of metaplasia were associated with gallstones .

Third common lesion found was cholesterosis 48(6%) cases.Stones were seen in all the cases similar to that seen in study done by Mondal B et al (11).

Other lesion were Xanthogranulomatous cholecystitis 43 (5.3%) cases ,out of which 40 cases had gallstones followed by Acute cholecystitis1case (0.25 %) with associated cholilithiasis and the least common was Adenocarcinoma 1 case(0.25%). Adenocarcinoma of gall bladder was a moderately differentiated adenocarcinoma Stage II (T2NxMx) . Shah H et al(10) found 2% incidence of adenocarcinoma in his study whereas a frequency of 1.25% was seen in study conducted by Kumbhakar D et al(9). No association with gallstone was seen.

Overall 500 cases(62.5%) out of 800 cholecystectomy specimens presenting with various histological diagnosis had associated gallstones.More female patients were seen as compared to males. This may be explained by Underlying factors like intake of high fat diet, high cholesterol diet ,female hormones , pregnancy, low fiber intake , sedentary life style, having liver disease seen in females usually.

Most of the patients (90%)patients presented with history of pain right hypochondrium followed by dyspepsia and non specific symptoms. Similar findings were seen by Laghari et al, Verma R et al.

Conclusion

Chronic cholecystitis is the most common histological entity. Association with stones is seen in majority of patients. Gall stones may result into variety of mucosal alterations and lesion like cholesterosis,metaplasia,empyema.Females have greater incidence of gall bladder lesions as compared to males and it may be because of fat , female sex hormones, age above fourty acting as higher risk for developing these gallstones . All these factors if taken care of would possibly reduce the incidence of gallstones and thereby all the associated lesions.

Table 1-Age distribuion of gall bladder lesions

Age group	NO.(N)	Percentage(%)
0-10	5	0.5
11-20	34	4.25
21-30	170	21.5
31-40	220	27.5
41-50	160	20
51-60	106	13.25
61-70	68	8.5
>70	37	5
Total	800	100

Table 2-Sex distribution of cholecystectomy patients

Gall stones	Present	Absent	NO.(N)
Male	110	90	200
Female	390	210	600
Total	500	300	800

Table 3-Histopathological diagnosis in cholecystectomy specimen

Diagnosis	NO.(N)	Percentage(%)
Chronic cholecystitis	643	80.4
Metaplasia	64	8
Cholesterosis	48	6
Xanthogranulomatous	43	5.3
Acute cholecystitis	1	0.25
Adenocarcinoma	1	0.25
Total	800	100

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