

Clinico-epidemiological study of gallbladder lump

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Abstract

Introduction: Gallbladder disease represents a major health problem worldwide and has been known since the time of the Egyptian dynasty. More than 98% of all gallbladder and biliary track disorders are one way or another connected to cholelithiasis, and calculus diseases constitutes most of the cases that seek surgical attention. It may present as acute chole-cystitis which many progress to empyema, chronic calculus cholecystitis or mucocele. Carcinoma of the gallbladder (GBC), although it has a low overall prevalence, is the most common cancer of the biliary tree and one of the most highly malignant tumors with poor prognosis. **Aims and Objectives:** To see the clinic epidemiological factors responsible for gall bladder disease. **Methodology:** All the cases presenting with gall bladder disease over the period of 12months from 30 June 2007 till 29 June 2008 in the Surgery Outpatient Department and Casualty at Gauhati Medical College And Hospital, Guwahati were included in this prospective study. Out of 149 cases, 56 were included in this study. **Result:** Overall the presentations of acute cases of gall bladder was more, than chronic and malignant i.e. 29 (44.62%), 23 (41.07%) and 4 (.40%) respectively. Maximal incidence in females was seen in the fifth decade, while the maximum incidence in males was seen in the fourth decade. The male to female ratio was 1:4.09 but in the malignant group the ratio is 1:3. Gallbladder disease with palpable lumps was maximally seen in housewives, which is around 66.07%. Next common occupation was male cultivators constituting 10.71%. 32.2% of the case belonged to the lower middle class of society. **Conclusion:** As the cases were more common in Females in fourth decade and in middle and low socio economic groups patients so special attention should be given for prevention and diagnosis these groups.

Keywords: Gall Bladder Lump, Gall Bladder Cancer (GBC).

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INTRODUCTION

Gallbladder disease represents a major health problem worldwide and has been known since the time of the Egyptian dynasty. More than 98% of all gallbladder and biliary track disorders are one way or another connected to cholelithiasis, and calculus diseases constitutes most of the cases that seek surgical attention. It may present as acute chole-cystitis which many progress to empyema, chronic calculus cholecystitis or mucocele. Carcinoma of

the gallbladder (GBC), although it has a low overall prevalence, is the most common cancer of the biliary tree and one of the most highly malignant tumors with poor prognosis¹. Gallbladder carcinoma is two to six times more common in women than men. Incidence increases with age and more than 75% of patients with this malignancy are older than 65 years. GBC is more common in Caucasians than in blacks and there is some evidence that the incidence is increasing in younger individuals². The incidence of GBC parallels the prevalence of gallstone disease; large and longstanding gallstones being associated with a higher risk of GBC. The risk of GBC in patients with gallstones has been reported to have increased four to seven times. The etiology of gallbladder cancer has been a source of speculation, the incidence of GBC parallels the prevalence of gallstone disease; large and longstanding gallstones being associated with a higher risk of GBC³. Gallstones constitute a significant health problem in developed societies, affecting 10% to 15% of the adult population, meaning 20 to 25 million Americans have (or

will have) gall-stones^{4, 5, 6, 7}. White Americans have an overall prevalence of 16.6% in women and 8.6% in men^{6,8}. Intermediate prevalence rates occur in Asian populations^{9,10} and Black Americans (13.9% of women; 5.3% of men).⁶ The lowest frequencies occur in sub-Saharan Black Africans (<5%).¹¹

AIMS AND OBJECTIVE

To see the clinical and epidemiological factors responsible for gall bladder disease.

METHODOLOGY

All cases presenting with gall bladder disease over 12months period were included in this prospective study. Out of 149 cases, 56 were included in this study. All included cases had clinically evident diagnostically proven lump. All cases had histological proven diagnosis. Diagnostic modalities were clinical followed by imaging with Contrast Enhanced Computerized Tomography/Ultrasound/image guided biopsy and or laparotomy. Test of proportion/chi square test were used for statistical analysis.

RESULT

Table 1: Showing the presentation of gallbladder lumps in different categories of gallbladder disease

Sr. No.	Gall Bladder disease	Total cases	Cases with findings	percentage
1	Acute	59	29	49.15
2	Chronic	86	23	26.74
3	Malignant	4	4	100
Total		149	56	12.47

In the Table1: The basis of the presentation and clinical findings, all cases were seen to belong to the three categories as outlined by Adams and Stranahan (1947): Acute benign gallbladder disease (Group I). This included cases such as acute cholecystitis, acute on chronic cholecystitis and empyema. Chronic benign gallbladder disease (Group II). This included cases such as gallbladder hydrops, gallbladder empyema with chronic presentation. Malignant gallbladder disease (Group III). During the study period the following potential false positives were encountered: hydronephrosis-1, hepatic flexure growth-1, hepatocellular carcinoma-1, hepatic secondaries-3. The physical features of the right sub-costal mass in each of the these cases were such that, disregarding the clinical picture, they could have been easily mistaken for gallbladder lump. Additionally, palpable gallbladder secondary to disease further down the biliary track were: 4 cases of carcinoma head of the pancreas.

Table 2: Disease specific Age-Sex Distribution

Sr. No.	Age Group (in Years)	Acute Benign		Chronic Benign		Malignant		Total	
		M	F	M	F	M	F	M	F
		1	11-20	1	2	0	0	0	0
2	21-30	0	6	0	2	0	0	0	8
3	31-40	4	4	0	7	0	0	4	11
4	41-50	1	8	1	10	0	0	2	18
5	51-60	1	1	1	1	1	2	3	4
6	61-70	0	1	1	1	0	1	1	2
Total		7	22	3	20	1	3	11	45
		29		23		4		56	

In this series, cases ranged from 18 to 70 years. Maximal incidence in females was seen in the fifth decade, while the maximum incidence was seen in the fourth decade in males. The Male to Female ratio was 1:4.09 but in the malignant group the ratio was 1:3. Acute disease was common in the fifth decade in females. This youngest patient was a 18 year old girl with acute calculus cholecystitis and the oldest was 67 year old female suffering from carcinoma. The youngest patient with carcinoma of the gallbladder was a 55 years old female.

Table 3: Showing Occupational Distribution

Sr. No.	Occupational	Male	Female	Total
1	Cultivators	6	0	6
2	Teachers	0	3	3
3	Students	1	3	4
4	Housewives	-	37	37
5	Businessman	2	0	2
6	Govt. Service	3	1	4
Total		11	45	56

The occupational analysis of the patients in this study has been presented in Table 4. Gallbladder disease with palpable lumps was maximally seen housewives, which is around 66.07%. Next common occupation was male cultivators constituting 10.71%. 32.2% of the case belonged to the lower middle class of society.

DISCUSSION

As per in Table 1. Overall the presentations of acute cases of gall bladder was more than chronic and malignant i.e. 29(44.62%), 23(41.07%), 4(.40%) respectively. Table 2. In this series, cases ranged from 18 to 70 years. Maximal incidence in females was seen in the fifth decade, while the maximum incidence in males was seen in the fourth decade. The male to female ratio was 1:4.09 but in the malignant group the ratio is 1:3. Acute disease was common in the fifth decade in females, this could be due to the reason as the classical presentation of disease is common in *fatty fertile female in forties* these findings are in confirmation with Mallik IA (2003)¹². In Table3:

Gallbladder disease with palpable lumps was maximally seen housewives, which is around 66.07%. Next common occupation was male cultivators constituting 10.71%. 32.2% of the case belonged to the lower middle class of society. This could be due to the fact that the etiology of Gall bladder disease is mixed one having infections like Typhoid, streptococcus, H.Pylori, Amoebiasis etc. As these infections are common in lower socio economic group, and the reason, why house wives are affected more is due to possibility obesity and high fat consumption in this groups. These finding are similar Dutta U (2005)¹³

REFERENCES

1. Pavlidis TE, Pavlidis ET, Symeonidis NG, Psarras K, Sakantamis AK (2012). Current curative surgical management of gallbladder cancer: a brief review. *J CurrSurg*, 2, 81-3
2. Mishra R, Goda C, Arora M, *et al* (2012). Treatment of Gall Bladder Cancer: a Review. *Indo Global J Pharm Sci*, 2, 54-62.
3. Tyagi BB, Manoharan N, Raina V (2008). Risk factors for gallbladder cancer : a population based case-control study in Delhi. *Ind J Med and PaedOncol*, 29, 16-26.
4. Shaffer EA. Epidemiology and risk factors for gallstone disease: has the paradigm changed in the 21st century? *CurrGastroen-terol Rep* 2005;7:132-14
5. Schirmer BD, Winters KL, Edlich RF. Cholelithiasis and cholecystitis. *J Long Term Eff Med Implants* 2005; 15:329-338.
6. Everhart JE, Khare M, Hill M, Maurer KR. Prevalence and ethnic differences in gallbladder disease in the United States. *Gastroen-terology* 1999; 117:632-639.
7. Tazuma S. Gallstone disease: epidemiology, pathogenesis, and classification of biliary stones (common bile duct and intrahe-patic). *Best Pract Res ClinGastroenterol* 2006;20:1075-1083
8. Sandler RS, Everhart JE, Donowitz M, *et al*. The burden of se-lected digestive diseases in the United States. *Gastroenterology* 2002; 122:1500-1511.
9. Singh V, Trikha B, Nain C, Singh K, Bose S. Epidemiology of gallstone disease in Chandigarh: a community-based study. *J GastroenterolHepatol* 2001; 16:560-563.
10. Chen CY, Lu CL, Huang YS, *et al*. Age is one of the risk factors in developing gallstone disease in Taiwan. *Age Ageing* 1998; 27:437-441.
11. Everhart JE. Gallstones and ethnicity in the Americas. *J Assoc Acad Minor Phys* 2001; 12:137-143. Gilat T, Feldman C, Halpern Z, Dan M, Bar-Meir S. An increased familial frequency of gallstones. *Gastroenterology* 1983; 84:242-246.
12. Mallik IA (2003) Clinicopathological features and management of gall bladder cancer in Pakistan. A prospective study of 233 cases. *JGastroenterolHepatol* 18(8):950-953
13. Dutta U, Nagi B, Garg PK, Sinha SK, Singh K, Tandon RK (2005) Patients with gallstones develop gall bladder cancer at an early age. *Eur J Cancer Prev* 14(4):381-385

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