



**ORIGINAL RESEARCH PAPER**

**Pathology**

**INCIDENCE OF GALL BLADDER CARCINOMA: A RETROSPECTIVE CASE STUDY AT RIMS RANCHI**

**KEY WORDS:** gallbladder disease, gallbladder carcinoma, incidence.

<b>Dr. Nasrin Parwin</b>	Post-graduate Student, Department Of Pathology, RIMS, Ranchi.
<b>Dr. Jayashree Maity</b>	Post-graduate Student, Department Of Pathology, RIMS, Ranchi.
<b>Dr. Sona Pathak*</b>	Post-graduate Student, Department Of Pathology, RIMS, Ranchi. *Corresponding Author
<b>Dr. M. A. Ansari</b>	Ex- Associate Professor, Department Of Pathology, RIMS, Ranchi.

**ABSTRACT**

**BACKGROUND:** Gall bladder carcinoma is most common malignancy of the biliary tract and seventh most common gastrointestinal malignancy. Histologically most gall bladder carcinoma are pancreaticobiliary type adenocarcinoma, showing variable degrees of differentiation. The determination of the histology type of tumour and differential diagnosis from gall bladder adenocarcinoma are often difficult. It has unique significant and striking gender, geographic and ethnic variation in the incidence worldwide. **MATERIAL AND METHOD:** It is retrospective record based study, performed in department of Pathology RIMS, Ranchi. Study population included all cases who were operated for different pathology of gall bladder, with some common clinical presentations of upper right quadrant abdominal pain, jaundice, nausea and vomiting, from January 2018-December 2019. **RESULT:** Among the spectrum of gall bladder diseases most common finding was chronic cholecystitis, incidence of gall bladder carcinoma is a rare entity. In our present study female preponderance has been noted and mostly incidence is among the age group above 30 years.

**INTRODUCTION**

Gall bladder carcinoma first described by Maxmillan de Stal in 1977<sup>[1]</sup>. Gall bladder carcinoma is most common malignancy of the biliary tract and seventh most common gastrointestinal malignancy<sup>[2]</sup>. Gall bladder carcinoma arises from epithelial lining of gall bladder and cystic duct. Manifest as either diffuse thickening of the gall bladder wall or gall bladder mass arising from fundus, neck or body.<sup>[3]</sup>

Clinical presentation is non specific, resulting in significant delay in diagnosis. It is either detected incidentally at time of cholecystectomy or when it present with complication due to local spread of the malignancy in the form of jaundice, hepatomegaly, ascites or duodenal obstruction<sup>[4]</sup>. Various risk factor are reported to be associated with gall bladder carcinoma, out of which gall stone is considered on the primary factors<sup>[5][6]</sup>. Risk of gall bladder carcinoma increase in anomalous pancreatico-biliary duct junction, gall stone, xantho-granulomatous cholecystitis, calcified or porcelain gall bladder, cholecystitis with typhoid carrier, gall bladder adenoma, red meat consumption and tobacco uses.<sup>[7]</sup> Radiological features in the form of gall bladder wall thickening are largely non specific and may masquerade as chronic cholecystitis.<sup>[8]</sup>

Histologically most gall bladder carcinoma are pancreaticobiliary type adenocarcinoma, showing variable degrees of differentiation. The determination of the histology type of tumour and differential diagnosis from gall bladder adenocarcinoma are often difficult.<sup>[9]</sup>

It has unique significant and striking gender, geographic and ethnic variation in the incidence worldwide. The highest rate of gall bladder carcinoma are found in northern part of India and Pakistan, East Asia (Korea and Japan). Eastern Europe and South America (Columbia and Chile).<sup>[10]</sup> Although various epidemiology reviews have reported that gall bladder carcinoma is rare in India. With incidence rate of 0.5 and 1.3 in men and women respectively. However the incidence rates are high as 9/100000 in northern part of India<sup>[11]</sup>.

Aim of our present study is to evaluate the incidence of gall bladder carcinoma in the patients attending RIMS, Ranchi with gall bladder pathology.

**MATERIAL AND METHODS**

It is retrospective record based study, performed in

department of Pathology RIMS, Ranchi. Study population included all cases who were operated for different pathology of gall bladder, with some common clinical presentations of upper right quadrant abdominal pain, jaundice, nausea and vomiting, from January 2018-December 2019. All the resected specimen of gall bladder were routinely processed as per standard protocol to obtain tissue paraffin blocks, then section were taken and stained by haematoxylin and eosin stain. Detailed microscopic evaluation was done and diagnosis was given as per WHO classification. Study procedure involves case report having age, gender, and clinical symptoms. The epidemiological data of gall bladder carcinoma along with spectrum of gall bladder disease were compared and analysed.

**RESULT AND DISCUSSION**

In our present study of 594 cases of various gall bladder diseases which were operated in RIMS, presented with some common symptoms of pain abdomen in upper right quadrant, nausea and vomiting, 10 cases (1.8%) out 594 total case were diagnosed as gall bladder carcinoma, 5 cases (0.8%) as chronic cholecystitis with dysplastic changes, 52(8.8%) were categorised as adenomatous hyperplasia, 519(87.4%) cases the majority of pathology were among acute and chronic cholecystitis. Few other rare diagnosis were Chronic cholecystitis with choledochal cyst 6(1.0%) cases and mucinous hyperplasia 2(0.3%) case (Table-1). This shows gall bladder carcinoma has very low incidence as shown in various studies.

Our study shows female sex preponderance (Table-3) for gall bladder carcinoma which is 80% and almost all the cases of GB carcinoma are above 30 years (Table-2). Usha Dutta et. al.<sup>[12]</sup> also reported similar findings of female preponderance of GB carcinoma and higher incidence among age group above 30 years.

**Disease wise Incidence (Table-1)**

DISEASES	NUMBER OF CASES	PERCENTAGE %
Acute cholecystitis	09	1.5
Chronic cholecystitis	510	85.9
Adenomatous hyperplasia	52	8.8
Chronic cholecystitis with choledochal cyst	06	1.0

Chronic cholecystitis with dysplastic changes	05	0.8
Mucinous hyperplasia	02	0.3
Adenocarcinoma of gall bladder	09	1.5
Squamous cell carcinoma of gall bladder	01	0.2
Total	594	100

**Age wise disease distribution of gall bladder carcinoma (Table-2)**

Age group	Number of cases	Percentage %
<20	NIL	NIL
21-29	NIL	NIL
30-39	02	20
40-49	03	30
50-59	03	30
>60	02	20

**Sex wise GB Carcinoma distribution (Table-3)**

Sex	Number of cases	Percentage %
Male	02	20
Female	08	80
Total	10	100

**CONCLUSIONS**

In our study Incidence of gall bladder carcinoma were found 1.8%. Chronic cholecystitis most common pathology of gall bladder was found. In our study cases of gall bladder carcinoma was found above the age group of 30 years. Study also signifies female predominance (80%) of GB cancer. Most common type of gall bladder carcinoma was adenocarcinoma (90%).

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