

**“GALLBLADDER DISEASES ARE MORE COMMON IN FEMALE; AN OBSERVATIONAL STUDY”.****\*Singh A.P.<sup>1</sup>, Chhari A.S.<sup>2</sup>, Bais P.S.<sup>3</sup>, Garg R.<sup>4</sup>, Sharma P.<sup>5</sup> and Gaharwar A.P.S.<sup>6</sup>**<sup>1,2,3,4,5</sup>All are Affiliated with Department of Surgery, S.S. Medical College, Rewa.<sup>6</sup>Professor and Head, All are Affiliated with Department of Surgery, S.S. Medical College, Rewa**\*Corresponding Author: Singh A.P.**

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**ABSTRACT**

**Background and objective:** Gallbladder and rest of biliary system disease are known from ancient time. gallstone disease is one of the most common problems affecting the digestive tract. Autopsy report have shown prevalence of gallstone from 11% to 36%.<sup>[1]</sup> multiparous female are at higher risk of gallstone formation. Scope of our study is to analysis the effect of age, sex and parity in gallbladder disorders. **Method:** This is a prospective study in which 350 patients presenting with definitive diagnosis of gallbladder disorders or presenting with clinical features suggestive of cholecystitis and later on diagnosed as acute cholecystitis or other gallbladder disorders, were included in the study. Their demographic and epidemiological data were recorded. **Results:** the ratio of male to female was 1:4.3 and most of the female were multiparous. Maximum number of patients recorded in the age group of 31-40 years.

**KEYWORDS:** gallbladder, gallstone, female.**INTRODUCTION**

Gallbladder diseases are the common problem of digestive tract. gallstone which is mainly due to disturbance in ratio of cholesterol and bile in the gallbladder has equal likeliness in the both gender until puberty.<sup>[2]</sup> active role of progesterone and estrogen during fertility period in female increasesd the risk of gallstone formation.<sup>[3]</sup> the incidence of gallstone is higher in female and first degree relative of gallstone have twofold greater prevalence.<sup>[4]</sup> the gallstone disease is frequent in northern India and gallstone is frequent in those belonging to higher socioeconomic group and multiparous female.

**MATERIALS AND METHODS**

This is a prospective study conducted over 1 years from 1 august 2014 to 31 July 2015, in which 350 patients admitted to the surgical wards of SGMH REWA, with

clinical features suggestive of cholecystitis and later on diagnosed as gallbladder disorder, or had definitive diagnosis of cholelithiasis or other gallbladder disorder, were included in this study.

Detailed history of all the 350 cases were taken according to the proforma with the age, parity, age of marriage, use of contraceptive pills and examined in detail.

All patients were investigated with complete blood count, Liver function test, renal function test, blood sugar, chest x-ray, ultrasound of the abdomen and CT Scan if needed.

Risk and complications of the condition were explained to the patients.

**RESULTS****TABLE-1**

Age	Male		Female		Total	%
	No.	%	No.	%		
10-20	2	3.07	10	3.50	12	3.42
21-30	10	15.38	73	25.61	83	23.71
31-40	16	24.61	71	24.91	87	24.85
41-50	11	16.92	75	26.31	86	24.57
51-60	9	13.84	36	12.63	45	12.86
61-70	12	18.46	29	10.17	41	11.71
71-80	3	4.61	8	2.80	11	3.14
>80	2	3.07	3	1.05	5	1.42
TOTAL	65	100%	285	100%	350	100%

Table-2

S.no.	Parity	No. of patients	%
1	Nullipara	24	8.42
2	One	20	7.03
3	Two	93	32.63
4	Three and above	148	51.92
Total		285	100

Table-3

s.no.	Age of marriage	NO. OF PATIENTS	%
1	<20	168	58.95
2	20-25	62	21.76
3	25-30	42	14.74
4	30-35	13	4.56
TOTAL		285	100

TABLE-4

S. NO.	USE OF OCP	NO OF PATIENTS	%
1	YES	45	15.79
2	NO	240	84.21
TOTAL		285	100

## DISCUSSION

Three hundred fifty patients were included in the study out of these 285 (81.43%) were female and 65 (18.57%) were male. The higher incidence of gallbladder disease in female may be due to, early age of marriage and so have more parity and hence more prone to gallstone and its complication like cholecystitis and gallbladder carcinoma.

Women are almost twice as likely as men to form gallstone, the gap narrow following menopause after which men being to catch up.<sup>[5]</sup>

The underlying mechanism is female sex hormone, parity, oral contraceptive use and estrogen replacement therapy are established risk factor.<sup>[6,7]</sup>

Estrogen increases the cholesterol secretion and reduces bile salt secretion and progesterone decreasing bile salt secretion and lowers the gallbladder emptying, leading to stasis.<sup>[7]</sup>

During pregnancy when female sex hormones are endogenously increased, biliary sludge appears in 5% to 30% of women. Resolution frequently occurs during the post-partum period. Sludge disappears in two-thirds; small (<1 cm) gallstones vanish in one-third, but definitive gallstones become established in nearly 5% cases.<sup>[8,9]</sup> Additional risk factors for stone formation during pregnancy include obesity (prior to the pregnancy), reduced high density lipoprotein (HDL) cholesterol and the metabolic syndrome.<sup>[10]</sup> So female with more number of pregnancy are at higher risk to develop gallstone. Positive correlation of gallstone with higher parity rate validates the symptom. In our study 84.55% had two or more children.

In our study male to female ratio was 1:4.3. In Gosh SK et al series the ratio is 1:5.9.<sup>[11]</sup>

## CONCLUSION

Gallbladder disease are more common in female. This is contributed by sex hormone. Females who get married in their early life and hence have higher fertility window and more prone to develop gallstone.

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