Original Article

Prevalence of cholecystitis at surgery inpatient department: A hospital based study

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Abstract

Introduction: The incidence of GBC has a specific geographic and ethnic variation. The highest incidence rates of GBC in the world are 21.5/100 000 in females in Delhi, 13.8/100 000 in Karachi and 12.9 /100 000 in Quito. In a review of worldwide incidence, the female-to-male ratio was reported between 2 and 3.1 Gallstones (GST) were said to play a major role. Other risk factors are obesity, multiparty and chronic infections. **Aims and Objectives:** To study Prevalence and associated factors with Cholecystitis at Surgery Inpatient Department**. Methodology:** This was a hospital based, cross-sectional study during Mar 2014 to Mar 2015 at tertiary health care Centre; Patients with Symptoms of Cholecystitis and Diagnosed by Ultra-Sonography as Cholecystitis were included into study. As per this criterion 62 patients were admitted at tertiary health care Centre. All the information was recorded with using semi structured questionnaire. **Result:** Most of the patients were in the age group of 40-50 (48.49%) followed by 30-40 (21.21%) ,>50 (15.16%); 20-30 (12.12%) and 10-20 (1.51%) ; <10 (1.51%). Female were mostly affected i.e. 62.12% than males i.e. 37.88% (Female: Male ratio was 1.6:1). Most common presenting complains among the cholecystitis were Pain in Abdomen 98.48% followed by Nausea and Vomiting 93.93%; Fever 89.39%; radiating pain in Shoulder 43.93%; Loose and light colored stools 37.88% ; Jaundice 34.84%; Itching 18.18%. Most common presenting complains among the cholecystitis were Pain in Abdomen 98.48% followed by Nausea and Vomiting 93.93%; Fever 89.39%; radiating pain in Shoulder 43.93%; Loose and light colored stools 37.88% ; Jaundice 34.84%; Itching 18.18%. **Conclusion**: In cholecystitis patients Most commonly found around 40 year and in the females; in children a calculus cholecystitis was common; most common associated risk factors found were Age ≥40; Female Sex (63.63), BMI ≥30(62.12%), H/O Diabetes (37.88%); Parity >5 (34.84%); Family History (22.72%); H/O Alcohol Addiction (18.18%); Age ≥40.

Keywords: Cholecystitis, BMI (Body Mass Index), Acalculus Cholecystitis**.**

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Received Date: 29/06/2015 Revised Date: 16/07/2015 Accepted Date: 22/08/2015

Access this article online

Quick Response Code:

Website: www.statperson.com

DOI: 04 December 2015

INTRODUCTION

The incidence of GBC has a specific geographic and ethnic variation.[1] The highest incidence rates of GBC in the world are 21.5/100 000 in females in Delhi, 13.8/100 000 in Karachi and 12.9 /100 000 in Quito.[1] In a review of worldwide incidence, the female-to-male ratio was reported between 2 and 3.1 Gallstones (GST) were said to play a major role.[2] Other risk factors are obesity, multiparty and chronic infections.[1] In India GBC is most prevalent in northern and north eastern states of Uttar Pradesh, Bihar, Orissa, West Bengal and Assam.[3] GBC is two times higher in women than men and is the leading digestive cancer in women in northern Indian cities.[4] Six Cancer registries of the Indian Council of Medical Research (1990–96) show a 10 times lower incidence of GBC per 100 000 in South India compared with the North, the age-adjusted incidence rate for females being 0.8 in Chennai in the south and 8.9 in Delhi in the north.[5] Cholelithiasis is a worldwide problem and it remains a common cause of surgical intervention, contributing substantially to health care costs. Its prevalence however, varies widely among different populations. Among American adults the prevalence of cholelithiasis is about 10% while in Western Europe the prevalence ranges from 5.9% to 21.9%.[6] Prevalence rates of 3.2% to 15.6% have been reported from Asia[7]. Cholelithiasis has historically

How to site this article: Yogesh Pralhad Chaudhari, Prasnna Gambhir Jawale. Prevalence of cholecystitis at surgery inpatient department: A hospital based study. *International Journal of Recent Trends in Science and Technology*. December 2015; 17(2): 43-45 http://www.statperson.com (accessed 06 December 2015).

been considered rare in sub-saharan Africa[8,9]. As many African countries undergo rapid urbanization with a steady shift towards a westernized diet cholelithiasis will assume importance in these populations[10]. The risk factors traditionally linked with GBC include cholelithiasis, obesity, reproductive factors, cholecystitis and specific chemicals[11].

AIMS AND OBJECTIVES

To study Prevalence and associated factors with Cholecystitis at Surgery Inpatient Department**.**

MATERIAL AND METHODS

This was a hospital based, cross-sectional study during Mar 2014 to Mar 2015 at tertiary health care Centre; Patients with Symptoms of Cholecystitis and Diagnosed by ultra-Sonography as Cholecystitis were included into study. As per this criterion 62 patients were admitted at tertiary health care Centre. All the information was recorded with using semi structured questionnaire.

RESULT

Table 1: Age wise Distribution of the Patients

Age	No.	Percentage
<10	1	1.51%
10-20	1	1.51%
20-30	8	12.12%
30-40	14	21.21%
40-50	32	48.49%
>50	10	15.16%
Total	**66**	**100%**

Most of the patients were in the age group of 40-50 (48.49%) followed by 30-40 (21.21%), >50 (15.16%); 20-30 (12.12%) and 10-20 (1.51%); <10 (1.51%).

Table 2: Sex wise Distribution of the patients

Sex	No.	Percentage
Female	41	62.12%
Male	25	37.88%
Total	**66**	**100%**

Female were mostly affected i.e. 62.12% than males i.e. 37.88% (Female: Male ration was 1.6:1)

Table 3: Distribution of the Patients as per Common Symptomatology

Common Symptoms	No.	Percentage
Pain in Abdomen	65	98.48%
Nausea and Vomiting	62	93.93%
Fever	59	89.39%
Radiating pain in Shoulder	29	43.93%
Loose and light colored stools	25	37.88%
Jaundice	23	34.84%
Itching	12	18.18%
Total	**66**	**100%**

Most common presenting complains among the cholecystitis were Pain in Abdomen 98.48% followed by Nausea and Vomiting 93.93%; Fever 89.39%; radiating pain in Shoulder 43.93%; Loose and light colored stools 37.88% ; Jaundice 34.84%; Itching 18.18%.

Table 4: Distribution of thePatients as per associated Factors

Associated Factors	No.	Percentage
Age ≥40	42	63.63 %
Female Sex	41	62.12%
BMI ≥30	41	62.12%
H/O Diabetes	25	37.88%
Parity >5	23	34.84%
Family History	15	22.72%
H/O Alcohol Addiction	12	18.18%
H/O Typhoid Fever	2	3.03%

Most common associated factors with Patients were Age ≥40; Female Sex (63.63), BMI ≥30(62.12%), H/O Diabetes (37.88%); Parity >5 (34.84%); Family History (22.72%); H/O Alcohol Addiction (18.18%); Age ≥40

DISCUSSION

In our study Most of the patients were in the age group of 40-50 (48.49%) followed by 30-40 (21.21%), >50 (15.16%); 20-30 (12.12%) and 10-20 (1.51%) ; <10 (1.51%) It is very rare to see the patient of cholecystitis in children there were two child patients on detailed clinical work up it was found that the patients were having the a calculus cholecystitis on ultrasonography and shown raised Widal titers so this can be due to a calculus cholecystitis as described by Steven M Schwarz[12] The aforementioned diseases may also contribute to the development of acalculouscholecystitis, because the formation of gallstones is not necessary for the obstruction of the bile duct. In addition, acalculouscholecystitis has been heavily associated with local inflammation, endocarditis, vasculitides, and systemic infection. Implicated infections include those occurring in typhoid fever, scarlet fever, measles, and acquired immunodeficiency syndrome (AIDS), as well as infections caused by *Mycoplasma*, *Streptococcus* (groups A and B), and gram-negative organisms, such as *Shigella* and *E coli*. Female were mostly affected i.e. 62.12% than males i.e. 37.88% (Female: Male ratio was 1.6:1) this in confirmative with Sayeed Unisa *et al*[14]. Most common presenting complains among the cholecystitis were Pain in Abdomen 98.48% followed by Nausea and Vomiting 93.93%; Fever 89.39%; radiating pain in Shoulder 43.93%; Loose and light colored stools 37.88% ; Jaundice 34.84%; Itching 18.18%. Most common associated factors with Patients were Age ≥40; Female Sex (63.63), BMI ≥30(62.12%), H/O Diabetes (37.88%); Parity >5 (34.84%); Family History (22.72%); H/O Alcohol

Addiction (18.18%); Age ≥40 this is in confirmative with Sayeed Unisa *et al* [14] and Adam Gyedu[15].

CONCLUSION

In cholecystitis patients Most commonly found around 40 year and in the females; in children a calculus cholecystitis was common; most common associated risk factors found were Age ≥40; Female Sex (63.63), BMI ≥30(62.12%), H/O Diabetes (37.88%); Parity >5 (34.84%); Family History (22.72%); H/O Alcohol Addiction (18.18%); Age ≥40.

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Source of Support: None Declared
Conflict of Interest: None Declared