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Prevalence of Acute Calculus Cholecystitis among Female Child Bearing Age at Shafi Hospital Mogadisho Somalia

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Abstract

Acute cholecystitis is a pathology in which the gallbladder wall becomes inflamed. Gallstones are the primary triggering factor of cholecystitis; they are present in more than 10% of the population and their presence increases with age. The main factors for the formation of gallstones are estrogen, pregnancy, cirrhosis, diabetes melitis, obesity and hemolytic disease.

Gallstone disease is a common reason for non-gynecologic operations during pregnancy and is the major non-obstetric cause for hospitalization. Pregnancy may accentuate gallbladder stone formation. Alterations in hepatobiliary function occur during pregnancy to create a lithogenic environment.

Conclusion our study is to investigate the prevalence of acute calculus cholecystitis among female childbearing age. the objectives: To investigate the prevalence of the most common age acute calculus cholecystitis among female childbearing age. To identify the risk factors associated with gallstones among pregnant women. To determine the most common predisposing factor to gallstones formation. With the sample size of 72, and the questionnaire was self-administered and also the target population was selected from hospital patients and the data was analyzed and interoperated by SPSS and Excel.

Recommends educating of community specially women to reduce the effect of the diseases that can be easily treated. Providing free health care for those women with low income level. Mother

should visit the doctor every trimester to check up her health condition and to provide consultation.

Keywords: Acute calculus cholecystitis, Prevalence, Childbearing age, cholecystectomy.

1.1 Background of the study

Acute cholecystitis is a pathology in which the gallbladder wall becomes inflamed. Gallstones are the primary triggering factor in 90% of the causes of cholecystitis; they are present in more than 10% of the population and their presence increases with age. The main factors for the formation of gallstones are estrogen, pregnancy, cirrhosis, diabetes melitis obesity and hemolytic disease however, in approximately 2 to 15% of cases, acute cholecystitis can occur without the presence of gallstones, and these are named acute acalculous cholecystitis (AAC), a condition that is diagnosed with increasing frequency in critical patients and is reported worldwide. (Mendez-Sanchez N, 2006).

The first surgical management of acute acalculous cholecystitis was accidentally undertaken when Jean-Louis Petit (1674-1750), a Parisian surgeon, in 1743 incised an abdominal wall lesion that turned out to be the inflamed gallbladder firmly adherent to the abdominal wall. He thus became the first to describe a cholecystostomy. In 1867 Dr J. Bobbs performed surgery on a patient for a mass presumed to originate from the ovarium, which however turned out to be an enlarged stone-filled gallbladder. Cholecystostomy was later performed by Sims, Kocher and Tait in the succeeding decade. It was not until 1882, however, that Langenbuch, a German surgeon, performed the first cholecystectomy at Lazarus Hospital in Kiel, Germany. The procedure was successfully performed on a 43-year-old patient with chronic cholecystitis, biliary colic and morphine addiction. By 1897, he had performed 100 cholecystectomies with a mortality rate of about 20%. In 1985, almost one century later, technical developments made it possible for Erich Mühe, also from Kiel, to perform the first laparoscopic cholecystectomy (Lap-C) (2).

The overall prevalence of acute acalculous cholecystitis worldwide is 10-20% and about 10 % in the Western world. The formation of gallstone disease is multifactorial as witnessed by prevalence figures that vary between different ethnical populations as well as between countries. It is inordinately high amongst American natives and lowest in black Africans.

More than 80 % of people with acalculous cholecystitis are asymptomatic and their disease clinically silent. The cumulative rate of biliary complication in asymptomatic is about 3% over 10 years, while 1-3% of those with symptomatic gallstone disease develop acute cholecystitis (AC) each year following diagnosis. In Scandinavia, 50% of those eventually treated for acalculous cholecystitis developed their disease by the age of 23-38 in female reproductive age.(Birnholz JC:, 1998).

Globally, cholelithiasis is a condition which affects approximately 20 million American women with million new cases diagnosed each year. Women of reproductive age are 4 times more likely than men of similar age to develop gallbladder diseases. Epidemiologic studies indicate that the incidence of acalculous cholecystitis rises abruptly as women enter the childbearing years. In fact, several studies show a direct relationship between parity and risk of developing biliary stones. (Glenn F, 2000).

Specific objectives of this research:

1. To investigate the prevalence of the most common age acute calculus cholecystitis among female childbearing age.
2. To identify the risk factors associated with gallstones amongst pregnant women.
3. To determine the most common predisposing factor to gallstones formation.

2.0 Methodology:

2.1 Research design.

This study follows cross sectional descriptive research design. The researcher has to use facts or information already available, and analyze in Shafi Hospital.

2.2 Study site and Target population

Population refers to the entire group of people that the researcher wishes to investigate at Shafi hospital. The study population is 90 which attended at Shafi hospital.

The target population is the patients who were attended Shafi hospital.

2.3 Sample Size and Instrument for data collection

From the target population of 90, the researcher selected 72 respondents as the sample size. From 01/02/2019 To 08/05/2019.

The researcher used Slovine's formula to select the respondents of the study from the population; using the following formula:

$$n = \frac{N}{1 + N(e)^2}$$

The questionnaire of the study will developed by the researchers to collect information about prevalence of acute calculus cholecystitis among the most common age female childbearing.: so that this was enabled to make the items in the questionnaire as valid as possible.

2.4 Data processing and analysis

This part addresses, processing and analysis. The data was collected through descriptive analysis. The data was collected from the study area, edited, collate and tabulated. Data will collected through questionnaire and interview, and A-4 point liker scale will used to measure the output of each item answered by the respondent. SPSS statistical computer software was used to tabulate the data.

2.5 Ethical Consideration and Approval

Under this, the respondents were informed that participation is voluntary so that they made informed decision to participate or not. The researcher also got with an introductory letter protecting respondents through data confidentiality also minimizes links between answers and identifiers, to avoid putting respondents in trouble. In addition, the researcher avoids racial or tribal remarks, which are not gender sensitive.

3.0 Results

The results of the study were presented using tables.

3.1 Gender of the respondents

Table: 3.1 gender of the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	30	41.7	41.7	41.7
female	42	58.3	58.3	100.0
Total	72	100.0	100.0	

3.2 Age of the respondents

Table: 3.2 age of the respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-24	19	26.4	26.4	26.4
24-35	33	45.8	45.8	72.2
36-55	20	27.8	27.8	100.0
Total	72	100.0	100.0	

3.3 Gallbladder disease is more common in female gender.

Table: 3.3 Gallbladder diseases are more common in female gender.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agree	49	68.1	68.1	68.1
Disagree	23	31.9	31.9	100.0
Total	72	100.0	100.0	

3.4 Females with obesity have an even increased risk of stones formation.

Table: 3.4 Females with obesity has an even increased risk of stones formation.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	51	70.8	70.8	70.8
	Disagree	21	29.2	29.2	100.0
	Total	72	100.0	100.0	

3.5 Gallbladder disease can be preventable.

Table: 3.5 Gallbladder diseases can be preventable.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	41	56.9	56.9	56.9
	Disagree	31	43.1	43.1	100.0
	Total	72	100.0	100.0	

3.6 The risk of gallstone formation during low solubility of cholesterol.

Table: 3.6 The risk of gallstone formation increases with the decrease in the degree of solubility of cholesterol.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agree	57	79.2	79.2	79.2
Disagree	15	20.8	20.8	100.0
Total	72	100.0	100.0	

4.0 DISCUSSION

During the reproductive years, women have a 4-fold higher prevalence of gallstones than men. Among age-matched women and men hospitalized for cholecystitis, therefore gallbladder disease is a significant cause of morbidity for young, otherwise healthy women. The female gender has a most compelling association with gallstone disease, especially during the fertile years.

This study was both prospective and retrospective study concerning risk factor of prevalence of acute calculus cholecystitis among female childbearing age. This study put into consideration of 72 respondents as sample size to determine about the Topic under study in Shafi Hospital Mogadishu Somalia. In our study shows Gallbladder disease is more common in female gender and young age, 45.8% of the respondent shows between 24-35 years old, because the risk is related to the number of pregnancies.

This study appear to has some similarity with other studies in the literature; **In Nigeria** January 2013; pregnant women (14–43 years of age) Twenty-one (56.8%) of the 37 women with gallstones were 30 years of age or younger. **In Pakistan; Karachi** from June 2013 till March 2015. The occurrence was higher in females (14.8%) than in male participants (5.7%). Mean Age ≥ 25 years. **In America**; September 1999(NHANES III) the overall prevalence of gallstone disease was found to be 7.9% in males and 16.6% in females, with a progressive increase after 20 years of age.

But there are some variation in other studies; **In Ghana**; KomfoAnokye Teaching Hospital, Kumasi between 2009 and 2012. The study shows: 55% were females. Age ≥ 40 years, Prevalence increased steadily by age, Mean age was 47 ± 18 years. **In Iran**; 2001 May; 16(5):564-7. Massarrat S. While the prevalence in the men and women in the age group 31-40 years was very low (0.3% in men and 1.8% in women), **In India**: hospital Jamshedpur, Jharkhand: INDIAN JOURNAL OF

RESEARCH VOLUME-6 | ISSUE-8 | AUGUST-2017 | male: female 1:4, Maximum number (29%) of patients belonged to the age group of 35-45 years followed by the age group of 25 to 34 years (26%). below 25 years aged were least in number (1.8%).

5.1 Conclusions

This Study is to investigate the prevalence of acute calculus cholecystitis among female childbearing. With the objectives: To investigate the prevalence of the most common age acute calculus cholecystitis among female childbearing age. To identify the risk factors associated with gallstones amongst pregnant women. To determine the most common predisposing factor to gallstones formation. With the sample size of with the sample size of 72, and the questionnaire was self-administered and also the target population was selected from hospital patients, teachers, students and the data was analyzed and interoperated by SPSS and Excel.

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Determinants of Pneumonia in Under Five Years Children at Community Level In Hodan District Mogadishu Somalia

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ABSTRACT

The study investigates the determinants of pneumonia in under five year's children at community level in Hodan district. The main objectives of the study was the baseline determinants which will