

TO STUDY THE EFFECTIVENESS OF THE AWARENESS PROGRAM ON PREVENTION OF CHOLELITHIASIS IN GENERAL POPULATION

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Abstract

Background - In Nepal and America per year 750,000 patients undergo cholecystectomy procedure. But cholelithiasis are one of the most prevalent and expensive gastroenteric diseases. In the chronic cholelithiasis disease is most affect the gallbladder and in middle aged females are most affected by the cholelithiasis.

Objective -This study is planned with the objectives- 1. to assess the exiting level of awareness on prevention of cholelithiasis in general population 2. To evaluate the effectiveness of awareness program on prevention of cholelithiasis in general population 3. To associate the findings of awareness program on prevention of cholelithiasis in general population with selected demographic variables.

Methodology - It is an academic based study. Research approach – Interventional approach use in this study. Research design: - one group per test -post test design .The study will be conducted in selected community area of Wardha district .Sampling technique non probability convenient sampling technique use. Structure questionnaire use. Inclusion criteria :The both male and female are included study .Who are available at the time of data collection .Participants who are willing to participate in the study. Participants who can read and write Marathi and Hindi . Exclusion criteria: Those who are participants in similar type of study. Those who are health professionals. Ethics approval was obtained from IEC, DMIMS (DMIMS(DU)/IEC/ Dec-2019/8646).

Expected Outcomes/Results: This study is planned to improve effectiveness of awareness on prevention of cholelithiasis in general population.

Keywords – effectiveness, awareness ,cholelithiasis

Introduction

Cholelithiasis is the most common health problems in western population . In this 80% of gallstones contain in the cholesterol. The pigment stones and mixed stones is remaining 20% . In every subtype having contain of bile acids, calcium salt , and components of bile¹ .

The gall bladder is a small shaped of the pear pouch or sac present in below the liver .The gall bladder stored is bile concentrated . But gall stones difference cause in the bile stagnation. In this there are two types of stone formation .Cholesterol stone and pigment stones . Cholesterol stones are account for 80% of gall stones affect in world. Majority of the gallstones are caused by age over 40 , diet , obesity and complex interaction of genetic and environmental factors. Women rate is higher than men. Because of less activity in women as to men .Women tend to have higher body fat . And gall stones are silent form. And it complication is cancer ².

Cholelithiasis is the one of the main causes of abdominal mortality and morbidity in the world ³. But now , disease of gallbladder is the frequent health problem in developed countries, and in this representing a major health issue ⁴.

Cholelithiasis disease is the recurrent and chronic hepatobiliary disease, in this basically impaired bilirubin , metabolism of cholesterol and bile acids. And in this characterized by the formation of gallstones in the gallbladder, common bile duct and hepatic bile duct ⁵.

The prevalence rate of gallstone is 10% to 20% of worldwide. But cholelithiasis is found in different part of the world. In India , female prevalence rate is 5.59 % than the males 1.99%. South Indians have 7 time lower occurrence of cholelithiasis as compared to north Indians ⁶.

While the most cholelithiasis is asymptomatic but some peoples experience biliary colic, which is characterized by severe and sudden pain in the upper right abdomen with some time nausea and vomiting and nausea occurring in later times and lasting few hours. Acute or chronic cholelithiasis it also in association with cholecystitis. Complications of cholelithiasis may include gangrene, infection, inflammation and perforation ⁷.

Cholecystitis due to cholelithiasis is a big health problem in the prevalence . cholelithiasis occur three times more often in women under 40 years of age and more than ; and they also high in frequency with age⁸ .

Cholelithiasis is the types of cholesterol ,brown pigment stones and mixed. In this biliary colic symptoms present in most common of the cholelithiasis in this 75 % of people seen the symptomatic cholelithiasis disease. In abdominal pain because of intermitted obstruction of common bile duct⁹ .

Abdomen ultrasound is the confine diagnosis evaluation of cholelithiasis and also identification of the particular disease condition .in this also do the medical and surgical management use for the cholelithiasis . In the cholelithiasis medical management given the dissolution of gallstone with the bile. In the surgical management do the surgical procedure in this laparoscopic or open cholecystectomy.

The cholelithiasis is more common risk factor in women ,multiparty, family history ,obesity , hypertension, diabetic mellitus ,birth control pills , vitamin C deficiency etc. ¹⁰.

The aim of this study was to identify the effectiveness of the awareness on prevention of cholelithiasis among general population.

Rationale of study –

Cholelithiasis is the prominent cause of disease , and its incidence is rapidly increasing. Despite an advancement of interventions in general population , still cholelithiasis is the leading cause of gallbladder cancers . The current prescribed to maintain the lifestyle .and to prevent the cholelithiasis. That's why cholelithiasis is major health problem is world that why prevention is important .

Objective : 1.To assess the exiting level of awareness on prevention of cholelithiasis in general population. 2.To evaluate the effectiveness of awareness program on prevention of cholelithiasis in general population. 3.To associate the findings of awareness program on prevention of cholelithiasis in general population with selected demographic variables.

Methodology: It is an academic based study. Research approach – Interventional approach use in this study. Research design: - one group per test -posttest design .The study will be conducted in selected community area of Wardha district .Sampling technique non probability convenient sampling technique will be use. Structure questionnaire will be use.

Inclusion criteria

1. The both male and female are included study
2. who are available at the time of data collection .
3. Participants who are willing to participate in the study.
4. Participants who can read and write Marathi and hindi .

Exclusion criteria

1. Those who are participants in similar type of study.
2. Those who are health professionals

Sample size to calculated to according prevalence of cholelithiasis
In consideration of 10% dropout,. 120 participants will be assigned

Interventions

First the pretest knowledge regarding on prevention of cholelithiasis in general population will be assessed through structured questionnaire

after the education and self-develop video assisted teaching interventions will be given on the same day to the general population .

On 7th day post test the effectiveness of Assess effectiveness of the awareness program on prevention of cholelithiasis in general population

Outcome measures

Primary outcomes To assess the exiting level of awareness on prevention of cholelithiasis in general population after intervention .

Secondary outcomes involve evaluate the effectiveness of awareness program on prevention of cholelithiasis in general population.

To associate the findings of awareness program on prevention of cholelithiasis in general population with selected demographic variables.

Data management and monitoring

The demographic data (like age , educational qualification, occupation, place of residence, dietary pattern sources of information), any previous major or minor illness will be recorded when they are participate in study. Where consent will obtained and data will be collected carefully. While collecting data researcher will keep pen, pencil and structured questionnaire to record the data accurately. Data will be collected in complete form by researcher. Keep data ready for analysis without any delay and problem. Than given the intervention of prevention of cholelithiasis after 7 the day to taken the post test.

Statistical analysis - Statistical analysis will be performed by using SPSS software version. Student paired t-test and student unpaired t- test and coefficient correlation will be applied to analyze the data ¹¹.

Ethics and dissemination : This study is approved by the Institutional Ethics Committee of DMIMS (DMIMS (DU/IEC/Dec-2019/8646) inform to all participants, researcher will tell them to read carefully and sign the informed consent. all data will keep confidential. The study results will be disseminated to study participants and published in popular publications.

Expected Outcomes/Results: This study is planned to improve effectiveness of awareness on prevention of cholelithiasis in general population.

Discussion : Cholelithiasis is the common health problem in worldwide. The prevalence rate of gallstone is 10% to 20% of worldwide. But cholelithiasis is found in different part of the world. In India , female prevalence rate is 5.59 % than the males 1.99%. South Indians have 7 time lower occurrence of cholelithiasis as compared to north Indians.

In a journal they have mentioned that, the risk of developing cholelithiasis can be reduced through maintaining an proper body mass index and to take proper diet ,physical activity , life style and diet is so important factory of to prevent of cholelithiasis.

In the world all populations, regardless of overall cholelithiasis prevalence is higher than women are almost two as likely as men to experience cholelithiasis. In gender most powerful influence on cholelithiasis ¹².

Gallstone divided in different categorized as black pigment, cholesterol, mixed stones. Mixed and cholesterol gallstone are formed in biliary sludge. Pigment stones from in calcium salt to bilirubin unconjugated .The cause of gallstone is Women , Multiparty ,Birth control pills, Pregnancy, A family history, Obesity , Diabetes, sedentary life style, Liver disease, Rapid weight loss, vitamin C deficiency. so many cause of cholelithiasis . clinical manifestation is nausea ,vomiting , abdominal pain , fever is all common sing and symptoms of cholelithiasis . Complications is the cholelithiasis is gallstone ileus, gallbladder cancer , biliary cirrhosis and. Pancreatitis.

So many study have evaluated the diet role and risk for developing the gallstone in this fatty acids , vitamins, carbohydrates energy intake ,cholesterol, fiber alcohol intake and minerals. So many different study given association between gallstone and cholesterol intake. Nowadays ,discoveries by the role of the orphan nuclear receptor in the regulations of fatty acid and cholesterol metabolism in the hepatic ¹³ .

So many study the demonstrated the risk for inflammation , path physiology of the gallbladder disease e.g. of the gallbladder wall , diameter of common bile duct .But in ultrasound also help for the predict for the risk of the conversion . that time surgeon have to be decided the during time of the intra operative open procedure in the short time^{14,15}.

In the cholelithiasis prevalence rate is increased in non-vegetarian peoples and females also. all type of risk factors is affected in cholelithiasis specially among the females . Ultrasound is also help to detection and early screening ¹⁶ .

So many study in finding the in cholelithiasis bacterial plays role in growth and development of cholesterol and pigment stone formation in the gallstone. Infection of the bacterium typhosum, E. coli, streptococcus ¹⁷.

Cholelithiasis is the preventive disease. But in this taken the proper treatment .It used the medical , surgical both managed is effective in the treated for the cholelithiasis. In this prevention management in proper diet , physical activity , life style , proper vitamin C diet or supplement , all this help to prevention of cholelithiasis. Singh et al had published a study on association between gall bladder diameter and calculus in the cystic duct in gall stone diseases and its importance in the current surgical practice¹⁸. Rajguru et al studied about embryological basis and clinical correlation of the rare congenital anomaly of the human gall bladder¹⁹. Dubey et al conducted a study of clinico-radiological profile of mediastinal masses in a tertiary care centre²⁰. Balwani et al²¹ and Hora²² et al conducted studies about awareness on related health problems.

Conclusion: Conclusion will be drawn from the statistical analysis.

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