



Review about Factors Related to Gallstone

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Abstract

There are two types of gallstones Cholesterol stones and pigment stones. There are many factors effecting on it. The disease has some symptom. Many researchers worked out for the factors and symptoms effecting on gallstones. The current study focus on the literature based on the gallstone disease with its different factors and symptoms.

Keywords: Gallstone

Introduction

According to [1] gallstones are pieces of solid material in gallbladder and can be developed in case of more cholesterol. If more cholesterol is developed than bile by liver then hard stones can be developed. In majority people, interaction of hereditary and diet can cause the gallstones. The present study focus on the literature regarding gallstone that has been done by different researchers related to the factors and symptoms.

Literature Review

Different work has been done by different researchers as [2]. Studied the risk factors and prevalence of gallstone disease in their research. Their purpose was determination of risk factors related to gallstones. they took data of adult Chinese population from Taiwan. They took 3333 observations of Chinese adults (aged ≥ 18 years) undergoing ultrasonography. They collected data through questionnaire. They used odds ratio, confidence interval and logistic regression analysis for the analysis purpose. They found that the overall prevalence of GSD was 5.0% (4.6% in men, 5.4% in women) with no significant sex differences (men/women: odds ratio was 0.71, 95% confidence interval were found for this purpose. Logistic regression analysis showed that increasing age was only correlated to GSD without controlling for other confounding factors in men. Other demographic characteristics and biochemical parameters, such as high body mass index (≥ 25 kg/m²), increased parity, hypercholesterolemia, hypertriglyceridemia, hyperuricemia, hepatitis C infection and cirrhosis, did not exhibit any correlation to GSD in logistic regression analysis, although they appeared to be related to GSD in women in univariate analysis Age and fatty liver in both sexes were found to be risk factors for GSD in the study population. The finding of a correlation between fatty

liver and GSD was an important addition to the literature concerning the risk factors of GSD. Diabetes mellitus, history of GSD in the first-degree relatives, and use of oral contraceptives were also risk factors for GSD in women [3]. Reported insulin resistance is a risk factor of the gallstone disease in non-fatty liver (NAFLD). They diagnosed by ultrasonography complete with (NAFLD) in 61 patients out of 161 patients. They also determined it with gender and age factor. According to gender they recognized that this disease in 32 NAFLD-GD patients and 189 patients NAFLD without GD. They used two tailed student t-test, chi-square test and multiple regression analysis. On that analysis they found that uric acid in men and Apo-B in women was independently associated with GD in NAFLD. They concluded that the general population and the gender was independently associated with GD and NFALD [4]. Studied the gallstone incidence and risk factors in a large population. Their study was based on questionnaire and physical examination. They found that 9618 out of 18179 (86.5%) subjects were gallstone free at the cross sectional study. They also determined it with gender age factor. They found that increasing age in men and BMI in females were predictors of pain. They used logistic regression analysis, odd ratio, hazard regression, multivariate analysis increasing age and BMI represent true risk factors for gallstones disease; pain in a right hypochondrium and epigastria is confirmed as the only symptoms related to gallstones. Sia centers throughout Italy enrolled 9618 subjects (5477 males, 4134 females, aged 30 - 79 years) [5]. Discussed whether physical activity decreases risk for symptomatic gallstone disease in men. They collected 45813 men aged 40 to 75 years old were followed from 1886 to 1894. They also determined the gender (men and age factor. 828 men reported having newly symptomatic gallstones and they diagnosed by ultrasonography or radiography. They used multivariate logistic model. The result

of this study indicate that 34% of cases of symptomatic gallstones disease in men could be prevented by increasing exercise to 30 minutes of endurance type training pre times per week [6]. Studied consumption of trans fatty acids in relation to the risk of gallstone disease in a cohort of 45918 men trans fatty acid consumption was assessed using a validated semi quantitative food frequency questionnaire. Newly diagnosed gallstones disease by radiology or cholecystectomy was ascertained biennially. During 14 years of follow up were documented 2356 new cases of symptomatic GS. They used multivariate analysis. The result suggested the higher intake of trans fatty acid modestly increase risk of GS disease. This adds to the concern that partial hydrogenation of vegetable oils to form shortening and margarine can lead to adverse health effects [7-11]. Examined the relation between GS, cholecystectomy and the development of pancreatic cancer in the nurses' health study and the health professionals Follow-up-study. They determined the gender and age factor. Among 174856 women and 48928 men without cancer at baseline. They study 349 cases of pancreatic cancer during up to 16 years of follow up. Participants were classified according to a history of GS or cholecystectomy. They study the cohorts the nurses' health study (NHS) enrolled 181700 female registered nurses aged 30 - 55 years in 1876 and information on their health status, medical history and known and suspected risk factors for cancer and coronary heart disease was gathered through mailed questionnaire. They also study the ascertainment of cholecystectomy or gallstone diagnosis. In 1882 the study participants of the NHS were asked about their history of cholecystectomy and the year of surgery with information updated biennially. They included confirmed pancreatic cancer diagnosed between the return of the 1882 questionnaire. They use multivariate analysis. The result of total 206 women and 143 men were diagnosed with pancreatic cancer during 2162077 person years of following of these 349 persons 333(96%) died of the disease. At baseline 9.2% of the women and 3.7% of the men reported gallstones or a history of cholecystectomy.

Conclusion

From the above study, it is clear that different work has been done on study of gallstone analysis. It was found that it is common more in women than men. Statistical analysis has been done in different terms by researchers. Factors effecting on GSD with its symptoms can be seen in this study by different researchers.

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