# Epidemiology of cholithiasis in a sampleof egyptian males and females in banha city

**Sohad Abdel aziz Mostafa**

-169-SUMMARY AND CONCLUSIONGallstone disease is a major public health problemespecially in the developed countries. The undoubtedincrease in the frequency of gallstones in last 20 yearsmay be due to an increase in the prevalence of gallbladderdisease or to a change in the threshold accepted as anindication for surgical treatment.Gallstone disease has a significant impact on healthcare costs in terms of demands on medical personnel andutilization of health care facilities. It is also costlyin terms of time lost from work.It wa~fo~ that gallstone diseaseapproXi~~/ adul~ and i aboover the age o~ years.occurs inof rson,However it is difficult to establish the incidence ofthe disease because population studies usingcholecystographic orimpractical. Moreoverultrasonographic techniques areoperation rates are indirectmeasures of prevalence since these rates are affected byclinical policy and economic circumstances.Epidemiologic data suggests that environmentalfactors (diet in particular) may be important in the-170- summary and ccnclusicnformation of gallstones. Many other risk factors aredocumented such as the female sex, older age, ethnic groupobesity hypercholesterolaemia, diabetes, liver disease,haemolysis ileal disease or resection, drugs in partiCUlaroral contraceptives, clofibrates and cholestyramine and apositive family history.During the last 20 years our understanding ofgallstone formation has been greatly enhanced, shock wavefragmentation, stone dissolution and laparoscopiccholecystectomy has become possible, but more informationare needed on the prevention of this disease before it canbe adequately controlled.The present study included 100 patients who provedultrasonographically to have gallstones and 100 matchedcontrols who proved by the same technique to be free fromgallstones. For each patient of these two groups a specialquestionnaire was designed in an attempt to find some riskfactors that may contribute to the pathogenesis ofgallstone disease.It was found in this stUdy that the age of thepatients ranged from 20 to 72 years with a mean 43.6. Forfemales it ranged from 20 to 72 years with a mean of 44.2and for males it ranged from 20 to 59 years with a mean of39-171- summary and conclusionFemales exceeded males in the present study withfemale to male ratio of 6.7 to 1.In studying the factors suggesting hormonal role inthe pathogenesis of gallstones, the present work has shownthat there was no difference between the female casesstudied and their controls as regards,the age at marriage,age of menarche, duration of menstrual life, age at firstpregnancy, mUltiparity and duration of contraceptive pilluse.On studying the

correlation between the age, atpresentation of gallstone disease and the age at firstpregnancy, in the present work, it was found that theolder the age at first pregnancy, the younger the age ofpresentation of gallstone disease. This may attractattention that patient getting their first pregnancy atolder age group are at a higher risk of developinggallstones.Also a significant inverse correlation was foundbetween the age at marriage and the age at presentation ofgallstone disease.It was observed in the present study that the studiedgroup of patients has a decreased intake of fibres and anincreased intake of carbohydrates, proteins and animalfats than the controls.-172- summary and conclusionInspite of the fact that 40 of the studied patientswere used to ’have snacks between meals which is considereda protective factor against gallstone formation comparedto 15 of the controls, it can still be considered a riskfactor as this high frequency of meals can cause obesitywhich is in itself a risk factor in the pathogenesis ofgallstones. Females were more accustomed to have snacks(42) than males (23).No difference was observed in the present stUdybetween cases and controls in relation to the percentageof patients using diet regimen which is considered a riskfactor for gallstone formation.The mean body mass index was found to bestatistically significantly higher in our patients withgallstones (28.7) than the controls (26.2) while the bodyfat percent was higher in patients (37.9) than controls(36.1) but this was statistically insignificant.In the same time BMI and body fat percent showedstatistically significant higher mean values in femalecases (29.2 and 39.1 respectively) than their controls(26.6 and 37.3 respectively).However~ in the male patients mean values of BMI andbody fat percent did not show statistically significant-173- summary and conclusiondifference between cases and controls. This may suggestthat obesity is not a risk factor for the development ofgallstones in males.from the medical history of the studied cases and thecontrols no relation could be linked between gallstonedisease and history of bilharziasis or diabetes. How~verliver cirrhosis could be considered a risk factor forgallstone disease as a statistically significant higherincidence of cirrhosis was observed in the studied casesthan the controls.Also a statistically significant higher incidence ofpositive family history of gallstone disease was observedamong the studied cases compared to their controls.As regards the laboratory tests whether routinetests, blood’groups or liver function tests, no relationcould be found between these tests and gallstone diseasein the present study.In conclusion, the factors that could be consideredof risk in the predisposition for gallstones in thepresent study were found to be, the female sex, older ageat first pregnancy, increased intake of carbohydrates,proteins and animal fats and decreased intake of fibres,obesity as indicated by BMI and body fat percent, liver-174- summary and oonolusioncirrhosis and a positive family history. On the other handfactors suggesting hormonal role in the pathogenesis ofgallstones such as age of menarche, duration of menstruallife, multiparity and duration of contraceptive pill usewere not found to be significant risk factors in thepresent study. Also snacks between meals, diet regimen,history of bilharziasis or diabetes, Hb%, blood groups andliver function could not be considered risk factors in theformation of gallstones in the present study.