

**SOCIO-DEMOGRAPHIC CHARACTERISTICS OF PATIENTS WITH GALLSTONE DISEASE IN A GROUP OF PATIENTS ADMITTED TO TEACHING HOSPITAL, PERADENIYA, SRI LANKA**

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Gallstone (GS) disease is one of the main clinical conditions responsible for number of upper gastrointestinal surgical casualties. However, it is a disease condition under explored in Sri Lankan population. The objectives of this study were to describe the demographic features of GS disease in a cohort of patients living in Kandy District, Sri Lanka and to describe the chemical composition of the GS recovered from them. Patients with symptomatic GS residing in Kandy District, Sri Lanka and admitted to the Teaching Hospital, Peradeniya from May 2011 to December 2012 were recruited for the study. Basic demographic data (Age, gender and ethnicity) was recorded from each patient and the GS recovered at the surgery were analyzed chemically and physically using Fourier Transform Infrared spectroscopy (FTIR) to categorized them as cholesterol and pigment GS. A total of 102 patients (females, 77; males, 25) eligible for the study criteria were studied. The mean age of the study group was  $46.1 \pm 11.6$  years and female: male ratio of the study group was 3:1. Mean age of presentation with symptomatic GS showed a significant difference (Two sample t test,  $p = 0.004$ ) between females and males with  $44.1 \pm 10.8$  and  $52.2 \pm 12.0$  years, respectively. The study group comprised of 79 (77%) Sinhalese, 8 (8%) Tamil and 15 (15%) Moor patients. Analysis of the chemical composition of GS revealed that 48 (47%) were cholesterol stones while 54 (54%) were pigment stones. Mean age of patients with cholesterol GS ( $44.4 \pm 12.4$  years) was lower than that of pigment GS ( $47.5 \pm 10.7$  years). However, this difference was statistically not significant (Two sample t test,  $p = 0.183$ ). Though majority of females ( $n = 40$ , 52%) had cholesterol GS and majority ( $n = 17$ , 68%) of males had pigment GS, the difference in the prevalence was statistically not significant ( $\chi^2$  test,  $df=1$ ,  $p = 0.083$ ). Majority of Sinhalese patients had pigment GS ( $n = 46$ , 58%) while majority of Moor patients had cholesterol GS ( $n = 12$ , 80%). GS disease is mainly a disease of middle aged females in the study group and they are more prone to have cholesterol GS. Pigment GS are more common among males and the majority of them develop the disease later in their lives. Pigment GS is the likely commonest type in Sinhalese while in Moors it is the cholesterol GS.

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