

EXPERIMENTAL MEDICINE RESEARCH DIVISION

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Experimental Medicine Research Division is mainly involved in research projects on hepatic and gastro-intestinal diseases relating the viral hepatitis. The division is now expanding the research area on non-communicable diseases such as diabetes and liver cancer. The division is also concerned with the diagnosis and management of hepatitis B and hepatitis C carriers who are attending the Hepatitis Carrier Clinic.

RESEARCH PROJECTS

1. COMMUNICABLE DISEASES

1.1. VIRAL HEPATITIS

1.1.1. Prevalence of diabetes mellitus in subjects with chronic hepatitis C infection in Yangon

Hepatitis C virus (HCV) infection and type 2 diabetes mellitus (T2DM) are two major public health problems associated with increasing complications and mortality rates worldwide. HCV infected individuals have a greater chance of developing insulin resistance (IR) and diabetes (DM). Moreover, HCV patients with IR have a poor response to antiviral treatment, increased progression of liver fibrosis and greater risk of developing liver cancer. This study was aimed to determine the prevalence of diabetes mellitus in subjects with chronic hepatitis C infection. It is a cross-sectional descriptive study starting from 1st December, 2016. According to selection criteria, 113 chronic hepatitis C infected subjects were selected from the hepatitis carrier clinic of Department of Medical Research (DMR) and out patients department of Liver Medical Unit, Yangon Speciality Hospital (YSH). Plasma glucose test and HbA1c test were done. Among the subjects, there were 46 male (40.7%) and 67 female (59.3%). The commonest age group was 40-59 years old. Although most HCV patients did not have significant mode of transmissions, some patients with history of

tattooing at their childhood were identified. Out of 113 subjects, 4 subjects (3.5%) were diagnosed as DM, where 55 subjects (48.7%) and 54 subjects (47.8%) were diagnosed as pre-diabetes and normal blood sugar level, respectively. Among 4 diabetic cases, 2 cases have a family history of diabetes and another 2 cases did not have; 3 diabetic cases have BMI (25-29.9) overweight and 1 case has normal BMI; 3 diabetic cases have (1-5yrs) HCV infected duration and 1 case has (6-10yrs) HCV infected duration. Among 55 Pre-DM cases, 19 (34.5%), 9 (16.4%) and 3 (5.4%) have HCV infected duration (1-5 yrs), (6-10 yrs) and (11-15 yrs), respectively. In this study, the prevalence of DM case is low and the prevalence of Pre-DM is relatively higher. In conclusion, early diagnosis of DM in HCV positive subjects can give early treatment and better management of DM. This study also provides the awareness of Pre-DM and early prevention of DM in Pre-DM subjects by changing the healthy life styles. Well control glycemic status in HCV positive subjects will give slow progression of liver fibrosis and better response to antiviral treatment.

SERVICES PROVIDED

Hepatitis Carrier Clinic

Viral hepatitis B or C infected patients were given consultation with regular check up at the hepatitis carrier clinic. There were 450 patients with hepatitis B infection and 20 patients with hepatitis C infection attended this year. A total of 1521 patients of old and new hepatitis B or C patients were consulted at the Hepatitis Carrier Clinic.

ACADEMIC

Sr.	Name	Course	Responsibility
1.	Dr. Aye Aye Win	MMedSc (Pathology)	Teaching

LABORATORY

Sr.	Laboratory Tests	No. of tests
1.	Anti-HCV	517
2.	Liver function test	31
3.	ALT, AST	459
4.	AFP test	299
5.	HBV markers (Combo test)	303
6.	HBsAg	7