observation revealed congestion of central veins, degeneration of hepatocytes, and reduction of glycogen granules in the DC group. These pathological changes were ameliorated in the flaxseed extract and glibenclamide treated rats.

**Conclusion:** Flaxseed extract may represent an alternative treatment for the control of diabetes mellitus and its related hepatopathy.

**DISTRIBUTION PATTERN OF HEPATITIS C VIRUS IN EASTERN PENINSULAR MALAYSIA FOR THE PAST DECADE**

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**Introduction:** Analysis of the Hepatitis C Virus’ (HCV) genotypic spread in a particular area has a crucial impact on public health. Genotyping is essential before initiating treatment.

**Methodology:** This is a hospital-based cohort of 133 chronic hepatitis C patients, collected prospectively among subjects attending Hospital Tengku Ampuan Afzan, Kuantan, within an area of eastern Peninsular Malaysia. We assessed the rate and distribution of HCV genotypes during two consecutive periods, from 2005 to 2006 and from 2013 to 2014, according to age, gender, race and risk factors.

**Results:** There were more male, Malay ethnic and IDU patients seen in the latter cohort. Genotype 3 was the dominant genotype followed by genotype 1, 4 and 6. Statistical evaluation of the demographics of HCV patients stratified by genotypes did not reveal any significant difference between the two periods. There was no association between the risk factors analyzed and the acquisition of different HCV genotypes. However, there was significant difference between males and patients receiving treatment in the second cohort (p<0.005).

**Conclusion:** The genotype distribution remains similar although there was a trend towards having slightly more genotype 3 in the latter years. The proportions of male patients and patients receiving treatment in the latter period were significantly higher.

**DIABETIC RETINOPATHY IN PRIMARY CARE CLINIC USING NON-MYDRIATIC RETINAL CAMERA**

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**Introduction:** Diabetic retinopathy is the commonest complication of diabetes mellitus. It is usually detected through funduscopic examination during initial clinical assessment of diabetic patients. For this purpose, the use of retinal cameras in primary care clinics have been introduced for the clinical assessment and diagnosis of diabetic retinopathy.

**Objective:** To determine the prevalence of diabetic retinopathy through the use of non-mydriatic retinal cameras among diabetic patients in government primary care clinics. Its associated risk factors were also evaluated.

**Methodology:** A cross sectional study was carried out. The subjects were selected through stratified random sampling from among those who attended government primary care clinics in Kuantan, Pahang between May 2010 and April 2011. The subjects were interviewed and assessed clinically using a structured questionnaire. The retinal examination was performed using non-mydriatic retinal cameras by trained and accredited staff.

**Results:** Out of 400 subjects, the majority of them were diagnosed with diabetes mellitus for less than 5 years (58.8%) and had controlled blood pressure (51.0%). The prevalence of diabetic retinopathy and maculopathy were 33.5% and 17.8% respectively. 22.3% of scanned retinas had mild non-proliferative diabetic retinopathy. Diabetic retinopathy was independently associated with chronic kidney disease {OR: 3.46, 95% CI (1.76, 6.80)} and high HbA1c {OR: 1.12,
95% CI (1.02, 1.22)}. Interestingly, those who had dyslipidemia has 39% less risk of diabetic retinopathy {OR: 0.61, 95% CI (0.39, 0.94)}.

**Conclusion**: Non-mydratic retinal camera use in primary care setting facilitates the detection of diabetic retinopathy early on in the disease. The presence of diabetic retinopathy is associated with chronic kidney disease, high HbA1c and dyslipidemia.

**REPRODUCIBILITY OF MAMMOGRAPHIC PARENCHYMAL PATTERNS AND BREAST DENSITY ON FULL-FIELD DIGITAL MAMMOGRAPHY (FFDM): COMPARISON OF TWO CLASSIFICATION SYSTEMS**

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**Introduction**: Mammographic breast density is considered as a strong predictor of breast cancer risk. However, breast density assessment and classification on mammogram is difficult.

**Objective**: The aim of the study is to compare inter-observer agreement between general radiologists in the classification of mammographic breast density using TABAR’s pattern and BI-RADS classification from two-view Full-Field Digital Mammography (FFDM).

**Methods**: A data set of 400 mammograms was evaluated by three general radiologists. The radiologists independently reviewed the images and classified the parenchymal pattern according to BI-RADS and TABAR classification systems. Inter-observer agreements were analyzed using kappa statistics.

**Results**: Inter-observer agreement for the BI-RADS is slight to fair (Reviewer 1 versus Reviewer 2: k=0.19, Reviewer 1 versus Reviewer 3, k=0.07 and Reviewer 2 versus Reviewer 3, k=0.49) and for TABAR is fair to moderate (Reviewer 1 versus Reviewer 2: k=0.23, Reviewer 1 versus Reviewer 3, k=0.31 and Reviewer 2 versus Reviewer 3, k=0.50).

**Conclusion**: Our study demonstrates a poor level of agreement in breast parenchymal pattern and density based on both BI-RADS and TABAR classifications. Thus, breast density in risk stratification of breast cancer should be used with caution in our local practice.

**LOWER URINARY TRACT SYMPTOMS (LUTS) AMONG WOMEN ATTENDING GYNAECOLOGY CLINIC AND ITS EFFECT ON THEIR SOCIAL LIFE**

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**Introduction**: Lower Urinary Tract Symptoms (LUTS) is a worldwide problem that is highly prevalent and varies by age, geography and culture. It influences the quality of life with a myriad of social implications.

**Objective**: To estimate the prevalence of LUTS among patients attending the gynaecology clinic. We also assessed its severity and associated risk factors.

**Methodology**: This is a cross sectional study where participants were given 3 sets of self-filled questionnaire; UDI-6, IIQ-7 and OAB v8.