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**P-CP-78**

**PARAOXONASE-1 (PON1) ACTIVITY IN SERUM AND VARIOUS ANTICOAGULATED-PLASMA**

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**Background:** Paraoxonase 1 (PON1) is a high density lipoprotein (HDL)-associated enzyme that is known for its function to hydrolyse organophosphate (OP) into a relatively harmless substance and inhibit oxidative modification of low density lipoprotein (LDL). It is among the commonly studied biochemical markers for cardiovascular diseases. PON1 activity is usually measured in serum (from plasma containers) while some other relevant cardiovascular parameters require non-coagulated plasma. Collection of blood in many types of container may increase the cost and require a larger amount of blood to be collected. Apart from plasma in lithium heparin, the reliability of plasma in other anti-coagulant containers such as potassium citrate, potassium oxalate/sodium fluoride and CPDA (from blood collection bag) on PON1 activity have not been clearly ascertained. The aim of this study was to compare and to study the correlation between the PON1 activity in serum and in plasma collected in various anti-coagulated containers.

**Methods:** An exploratory study was carried out on 59 volunteers. Blood samples were collected in plain containers and with potassium EDTA, lithium-heparin, potassium citrate, potassium oxalate/sodium fluoride and CPDA. Serum and plasma were analyzed for PON1 activity spectrophotometrically after the hydrolysis of substrates paraoxon/paraoxon.

**Results:** The PON1 activity in plasma from lithium-heparin container was slightly reduced but not statistically different (p=0.065) from that of serum (27.20±0.23 vs 26.93±0.11). However, the PON1 activity was significantly reduced (p<0.001) to 22.13±0.27 vs 21.45±0.18 for serum and plasma collected in various anti-coagulated containers, respectively. In plasma from potassium citrate, CPDA, lithium-heparin and oxalate/sodium fluoride and potassium EDTA containers, there were significant positive correlations (p<0.01) between PON1 activity in serum and with PON1 activity in all anti-coagulated plasma except for plasma in potassium EDTA container (r=0.22, p=0.06). Conclusion: Our finding suggested that only serum and plasma in lithium-heparin container are suitable for the analysis of PON1 activity.

**P-CP-79**

**EVALUATION ON THE I-CHEM VELOCITY DIAGNOSTIC IRECELL 2000 FULLY AUTOMATED URINALYSIS SYSTEM**

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**Introduction:** Urinalysis is a simple routine clinical laboratory test that normally includes a number of parameters of physical and chemical characteristics and detects the presence of various pathological entities. Positivity of certain characteristics found in urine may follow microscopical examination for further investigation. The information provided by the test is useful for various medical condition screening. The Core Laboratory Unit, Hospital Kuala Lumpur opts to turn to the new Iris Diagnostics I-CHEM VELOCITY 2000 Fully Automated Urinalysis System for this task. The system is comprised of two units of analyzers: the Iris I-Chem Velocity which performs the biochemistry test using dipstick method and I-Q 200 Urine Microscope analysers which provides digital image capture. The objective is to achieve better, faster, efficient testing and accurate result, the evaluation test is executed to see the performance of the new system.

**Method:** A total of forty fresh urine sample remaining were collected from the Urology Clinic outpatients. The urine sediments were examined by manual microscopy, I-Chem analysers and Iris Diagnostic IRECELL 2000 Fully Automated Urinalysis System. The protocols of the evaluations are comprised of a correlation study between the Iris I-Chem Velocity and the Iris Semi-Automated Urinalysis for the urinary biochemistry strip testings, imprecision test using quality control materials, linearity study of the instrument and correlation study of IRBC and IRW in urine between Iris I-Chem Velocity and between I-Q 200 Urine Microscope analysis.

**Result:** The correlation within each unit grade result is determined to be the indicator for acceptability in this evaluation for correlation study in the strip test Agreement of the semi-quantitative analyte concentration within each grade level in all parameters. While the iris I-Q200 shows consistent and precise microscopic readings. Conclusion: The automated system demonstrated good concordance with the Iris Semi-Automated Urinal Analysis and shows a slightly better sensitivity in analysis.

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**P-CP-80**

**INFILTRATING LYMPHOMA IN PATIENTS WITH LOW DENSITY LIPOPROTEIN AND CO-MORBIDITIES MATCHED-CONTROLLED.**

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**Conclusion:** Infiltrating lymphoma is the most common lymphoma in cases with low density lipoprotein (LDL) and hyperlipidaemia. The incidence of lymphoma was significantly lower in the low LDL group than in the high LDL group. This suggests the potential benefits of black tea in the prevention and treatment of lymphoma.

**P-CP-81**

**THEFLAVIN-RICH FRACTION REDUCES LIPOPOLYSACCHARIDE-INDUCED EXPRESSION OF ADHESION MOLECULES IN VASCULAR ENDOTHELIUM**

Aihai Pei, Macrath Joh, and Jie Hu

**Introduction:** The flavin-rich fraction is a flavin-rich fraction (FRF) fraction from Polygonum cuspidatum Sieb. et Zucc. This study aimed to explore the effects of the FRF on the expression of adhesion molecules, which are critical components for vascular endothelial cells and involved in the pathogenesis of vascular diseases. The flavin-rich fraction significantly reduced the expression of adhesion molecules. In addition, the expression of adhesion molecules was reduced in endothelial cells with the flavin-rich fraction. The results suggested a potential role for flavin-rich fraction in the prevention and treatment of endothelial dysfunction.