EDTA plasma clearance using slope intercept method. The patients’ height and weight is used to correct the GFR to body surface area. Correlations of the values are tested by Pearson and intra-class correlation, and mean and standard deviation derived from paired t-test.

**Results:** All time point combinations using two blood sampling shows a high correlation with multiple blood sampling method (p value < 0.001, r = 0.909 to 0.989). The best combination using two blood sampling is at 2 and 4 hour time point (r = 0.989 with 99% consistency). There is no significant difference in the GFR obtained by two blood sampling and multiple blood sampling between gender and ethnicity.

**Conclusion:** $^{51}$Cr-EDTA GFR estimation using two blood sampling method is accurate and reliable. The two and four hour time point is found to be the best. Gender and ethnicity does not influence GFR estimation using two blood sampling method.

### A STUDY OF THE ARTERIAL VARIATIONS IN THE POPLITEAL REGIONS, ARE THEY SYMMETRICAL OR NOT?

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**Objective:** To assess the prevalence of the arterial variations in the popliteal regions and the symmetrical characteristic of the popliteal artery branching patterns in both knees of all subjects.

**Methodology:** 77 subjects (154 knees) were prospectively studied using colour Doppler ultrasonography in this descriptive and cross-sectional study. No subject had anomalies of the lower limbs or history of previous lower limb surgery. Subjects with cardiovascular disease were excluded from this study.

**Results:** Prevalence of the popliteal artery variations was 4.5%. The two variants (type I-B and type II-A) were seen in both knees. There were 5 subjects who had at least one variant in either side of their knees. Two subjects had type II-A occurred bilaterally in both knees while 3 other subjects had unilateral pattern of type I-B in combination with type I-A in their knees.

**Conclusion:** Symmetrical and non-symmetrical pattern can be seen in the population depending on the popliteal artery branching pattern.

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### Review

**REVISITING ESSENTIAL HYPERTENSION, REGULATION OF BLOOD PRESSURE CONTROL AND THE ADRENALINE HYPOTHESIS**

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Hypertension or high blood pressure, is a condition that has a significant impact on the world’s population morbidity and mortality. The World Health Report 2002, stated that high blood pressure caused 7.1 million deaths throughout the world, which was approximately 13% of total deaths worldwide. The body’s arterial blood pressure control depends on short-term and long-term mechanisms. Short-term BP regulation is mediated by the autonomic nervous system (ANS) targeting the heart, vessels, and adrenal medulla. The sympathetic nervous systems (SNS) crucial involvement in stressful conditions and short term regulation of blood pressure is also widely accepted. There has also been increasing