

Red cell distribution width and the syntax score values among suspected of coronary artery disease attending National Hospital of Sri Lanka

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Introduction: Red Cell Distribution Width (RDW) a red-cell parameter of Full Blood Count (FBC) indicates size inconsistency of erythrocytes. Narrowing of coronary arteries (coronary artery disease) leads to reduction of blood flow to myocardium and resultant myocardial ischaemia/infarction. Syntax Score is the angiographic scoring-system commonly used to assess the severity and complexity of CAD. We studied the variability of RDW with CAD to ascertain a relationship between RDW & CAD.

Objective: To compare the relationship between RDW and presence/ severity of CAD (determined by Syntax-Score) in patients presenting to National Hospital, Sri Lanka.

Methods: 35 patients undergoing angiography at cardiology-unit were included. 35 age/ sex matched healthy individuals were selected as the control group. RDW was obtained from FBC in cardiac patients and control group. Angiographic data of cardiac patients were used to calculate syntax-score. S.ferritin/S.creatinine was done on CAD patients to exclude iron-deficiency/ renal-impairment as these conditions influence RDW. Further data on medication, presence /absence of other diseases, FBS, lipid-profile etc were obtained from questioning patients and perusing clinical records.

Results: Mean Hb of control group and CAD group were 13.39 ± 1.54 mg/dL and 12.87 ± 1.40 . Hb levels were not significantly different between two groups ($p=0.188$), but RDW showed a statistically significant difference ($p=0.000$) between groups. Patients' with CAD demonstrated a higher RDW (mean RDW of CAD group = 13.29 ± 0.698 ; Mean RDW of control group 12.60 ± 0.51). There was a statistically significant increase of RDW with increase of syntax-score (Pearson correlation coefficient 0.341 and $p=0.049$). The cut-off value for RDW-CV as determined by the Receiver Operator Characteristic (ROC) curve is 12.75% with specificity of 71.4% and sensitivity of 60.5%.

Conclusion: There is a statistically significant increase of RDW with increase of syntax score indicating an increase of RDW with increasing severity of CAD. Therefore RDW can be used as a supportive diagnostic tool to identify CAD patients from healthy individuals. The cut off value for presence of CAD as determined by ROC curve is RDW of 12.75%.

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Are we successful? A descriptive study on exclusive breast feeding practices among mothers in a baby friendly hospital

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Background: WHO defines Exclusive Breast Feeding (EBF) as "no other food or drink, not even water, except breast milk for 6 months of life, except ORS, vitamin and medicine drops. Being a baby friendly hospital, Colombo South Teaching Hospital (CSTH) is bound to practice 10 steps to promote EBF. It also has a lactation management centre (LMC) which provides maternal education and staff training to promote EBF

Objectives: To assess infant feeding practices during the first 6 months of life.

Methods: A descriptive cross sectional study, among mothers with babies aged 6 months to 1 year, using an interviewer administered questionnaire was conducted after informed consent.

Results: Out of 165, the initiation of breast feeding within 1 hour of life was done in 148 (89.7%) babies. The majority (85.5%) knew the correct and current recommendation regarding EBF. Mothers have received education regarding EBF in the antenatal clinics (n=121) and postnatal wards (n=114). In addition, fifty were referred to the LMC postnatally. Still 87 (52%) babies had some fluid other than breast milk during the first 6 months of life. Commonest fluid given was water (n=34) and next was formula feeds (n=20). Breach of EBF practice has happened mostly between 4th and 5th month of age (67%) under the influence of an "experienced" family member. Maternal knowledge regarding expressed breast milk and its usage was poor.

Conclusions: Although baby friendly initiative steps are practiced, EBF rate was not satisfactory. It is recommended to identify the barriers and rectify them carefully.

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Comparison of four in-house prepared culture media on mycelial growth and morphology of selected medically important fungi: A pilot study

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Background: Production of spores and fruiting bodies are important in morphological identification of fungi. However sporulation of moulds are influenced by different media used for culture.

Objectives: This study was done to compare morphological variations of mycelia on in-house prepared tomato agar (TA), potato carrot agar (PCA), water agar (WA), soil agar (SA) with commercially prepared Sabouraud dextrose agar (SDA).

Methods: *Exophiala* sp., *Exserohilum* sp., *Fusarium* sp., *Ochroconis* sp. and *Trichophyton* sp. isolates from the National Pathogenic Fungal Culture collection was used for the study. PCA, TA, SA and WA were prepared in-house. Conidial suspension (Mc Farland 2.0) was used to inoculate each media. Diameter, colour and texture of obverse and reverse of the colony were assessed. Degree of sporulation and ability to identify the mould correctly were assessed microscopically on day 7 and 14 independently by three observers blinded to media and identification.

Results: Submerged growth was observed in all fungi on WA and SA. Reverse of colony was difficult to assess on PCA and TA due to colour of the media. Diameters were difficult to assess due to spillage of conidial suspension. Best sporulation and identification for *Exserohilum* sp. was observed in TA (day 7) and SA (day 14) while SDA showed minimum sporulation. SA was the optimum media for sporulation and identification of *Ochroconis* sp. (day 7 and 14) whereas PCA was the least. *Exophiala* sp. sporulation and identification was best with PCA (day 7 and 14) and SDA (day 14) and least with WA. All culture media supported growth of *Trichophyton* sp. and *Fusarium* sp. equally. Cost of (1 L) media was highest for SDA and least for SA.

Conclusion: Different moulds have differing capacity to grow and induce sporulation on different in-house prepared media and single type of medium is inadequate to induce sporulation. The colony appearance and the duration to sporulation varies with different media. However, in-house prepared media is not cost effective compared to commercial culture media as specimens cannot be primarily/only inoculated on in-house media due to above reasons.