Faculty of Medical Sciences, University of Sri Jayewardenepura
in collaboration with
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# Excellence in Medicine through Innovative Research

## Scientific Sessions 2016

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# Book of Proceedings

Golden Rose Hotel, Boralesgamuwa

## OP 9

**NT-proBNP concentration as a criterion for the diagnosis of heart failure patients in Sri Lanka: A Preliminary study**

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**Objective:** To compare N-terminal pro-brain natriuretic peptide (NT-proBNP) level between chronic heart failure patients and individuals without heart failure.

**Methods:** Blood samples were collected from echocardiographycally confirmed 46 chronic heart failure patients and 46 non heart failure individuals at cardiology unit District General Hospital, Kalutara. Serum samples were analyzed for serum creatinine level to exclude renal influence and NT-proBNP level was measured using a minividas® auto analyzer.

Bilateral comparisons were made using Mann-Whitney U test. P values lower than 0.05 were considered as statistically significant. The data were analyzed using SPSS version 16.

**Results:** Patients with chronic heart failure were shown to have higher NT-proBNP values with a mean of 1553.17±1555.07pg/ml (range124-6167) than control subjects with a mean of 39.61±20.23pg/ml (range 15-90) (P 0.001). A statistically significant difference was observed in plasma NT-proBNP values between heart failure patients and healthy individuals (p < 0.001). When the data were evaluated, minimum value of NT-proBNP was found to be 124pg/ml for chronic heart failure patients. Based on the results of healthy individuals, 82.7pg/ml was established as the 95th percentile.

**Conclusions:** NT-proBNP is an important biomarker in evaluating CHF patients. The presented data suggest a population cut-off level of 82.7pg/ml to exclude heart failure in individuals with symptoms suggestive of heart failure or to risk stratify individuals at risk of heart failure.

## OP 10

### Clinico-pathological factors influencing the recurrence free interval of patients with recurrent breast cancer

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**Objectives:** Clinico-pathological factors affect the prognosis of breast cancer (BC) reflecting the heterogeneity of the disease. Following initial treatment, there is an ongoing risk of recurrence. The influence of these prognostic factors on the time taken to develop recurrence is not well established. This study was designed to determine the effect of clinic-pathological factors on the recurrence free interval (RFI) of BC patients with recurrent disease.

**Methods:** This retrospective study included BC patients who had sought the immunohistochemistry laboratory services of our unit from May 2006 to December 2012. Mean follow up time was 45±23 months. All BC patients who had recurrences (loco-regional and distant metastasis) during the follow up period were enrolled. RFI was measured from the date of first therapeutic intervention to the date of confirmation of recurrence. Chi-square test was used for analysis.

**Results:** Out of 944 BC patients, 188(mean age 50±11 years), had recurrences (loco-regional =35, distant metastasis =153). More than 50% of them had recurrence within 24 months of initial treatment (local=18/35 and distant=81/153). Mean RFI was 33±21 months for oestrogen receptor (ER)/progesterone receptor (PR) positive BC and 22±16 months for ER/PR negative BC. ER/PR positive BCs had a significant upward trend in developing recurrences over time ($\chi2$ trend<0.001) while the rest had a downward trend. Other clinico-pathological factors were not associated with RFI. Majority (49/53) of the ER/PR positive BC patients had received hormone therapy and 179/188 BC patients had received chemotherapy.

**Conclusions:** ER/PR positive BC patients develop late recurrences while hormone receptor negative patients develop early recurrences depicting late and early treatment failure in respective groups.