

# WORLD CONGRESS ON RHEUMATIC HEART DISEASE

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**Title:** MEAN LEVEL OF B-TYPE NATRIURETIC PEPTIDE (BNP) IN PATIENTS WITH MITRAL STENOSIS CAUSED BY RHEUMATIC HEART DISEASE

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**Background & Aims:** Mitral stenosis caused by rheumatic heart disease (RHD) is the most common of valvular lesion in adults and prevalent in developing countries like Pakistan. Higher natriuretic peptide (BNP) levels can be observed in patients with moderate to severe untreated mitral stenosis and are associated with higher rates of morbidity and mortality. That is why this study aims to determine the association between levels of pro-BNP with severity (mild, moderate, and severe) of mitral stenosis.

**Methods:** This was a clinical prospective study carried out in the department of Adult Cardiology, National Institute of Cardiovascular disease, Karachi from 8th August 2019 to 7th February 2020. Total 68 patients of either gender with age between 25-70 years had mitral stenosis of moderate to severe intensity (mitral area  $<1.5\text{cm}^2$ ), diagnosed on echocardiography were included for final analysis. A simple blood was taken for the assessment of pro-BNP levels. Questionnaire was used for demographic & Clinical data collection and analysed using SPSS Version 22.0.

**Results:** The overall mean age of study subject was  $42.21 \pm 11.50$ , Years ranging from 25-70 years. Among them, females were prevalent ( $n=43$ , 63.2%). The Overall mean serum BNP Level was  $1071.12 \pm 807.26\text{pg/ml}$  and the mean difference of serum BNP level was not significant among group of gender, age, and diabetes mellitus with  $p>0.05$ . Significantly raised levels of BNP were observed in patients with severe mitral stenosis as compared to moderate mitral stenosis,  $p<0.05$ .

**Conclusions:** In conclusion, the mean BNP levels were higher in patients with severe Mitral stenosis. Therefore BNP may be used to complement the clinical and echocardiographic assessments in patients with Mitral Stenosis.