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| **Is NT-proBNP a useful biomarker in Pulmonary Arterial Hypertension?** |
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| **Introduction/Aim:** NT-proBNP is a potential useful biomarker in the diagnosis and prognostication of pulmonary arterial hypertension (PAH) patients. It is an isomer of the commonly used BNP and is upregulated during times of myocardial stretch from right ventricle pressure overload. It has a longer half-life than BNP, higher plasma concentration and may potentially be a more sensitive marker of ventricular stress. This study seeks to understand how high-risk patients with a baseline NT-proBNP level >1100 compared to a low-risk group with levels <1100.**Methods:** This was a single centre retrospective analysis. The Gold Coast University Hospital pulmonary hypertension database was used to screen for patients with a diagnosis of PAH on active treatment and who had a baseline NT-proBNP. The investigators then manually checked the electronic medical records to collect variable data. **Results:** Of the 95 patients screened 43 met the inclusion criteria and were included for analysis in the study. The average age was 65.5 years and 67.4% were female. The most common subtypes were idiopathic (48%) and connective tissue disease (CTD)-associated (32%). The cohort was then separated into high-risk patients with an NT-proBNP >1100 (20) and low risk <1100 (23). Treatment regimes were evenly spread with 34% on monotherapy, 56% on dual-therapy and 10% on triple-therapy. An NT-proBNP level >1100 was associated with worse right heart catheter (mPAP 42.5 vs 34.1mmHg; p=0.017 & PVR 9.7 vs 5.7WU; p=0.001) and echocardiographic (RVSP 71.2 vs 60mmHg; p=0.017) findings. No significant difference in 6-minute walk distance (321.1 vs 327.3m; p=0.426) or 12-month hospitalisation rates (7 vs 7) were seen.**Conclusion:** This study demonstrates a baseline NT-proBNP level >1100 is associated with worse pulmonary pressures as seen by the right heart catheter and echocardiogram findings. This study failed to demonstrate any association with increased mortality and a high NT-proBNP. A larger multicentre evaluation may shed more light into the prognostic value of NT-proBNP for pulmonary hypertension patients.**Key Words:** Pulmonary hypertension, NT-proBNP**Grant Support:** N/A |