

## Investigation Corner

### *Ntpro BNP*

#### IS MY HEART FUNCTIONING GOOD

- B-type natriuretic peptide (brain natriuretic peptide:BNP) is small, ringed peptide secreted by the heart to regulate blood pressure and fluid balance.
- Once released from the heart in response to ventricle volume expansion or pressure overload, the N-terminal (NT) piece of 76 amino acids (NT-proBNP) is rapidly cleaved by the enzyme corin and furin to release the active 32-amino acid peptide (BNP)
- Both B-type and C-proBNP are markers of atrial and ventricular distension due to increased intracardiac pressure.
- **Normal level:** Less than 125 pg/mL for patients aged 0-74 years. Less than 450 pg/mL for patients aged 75-99 years.
- An increase in the level of N-terminal pro-B-type natriuretic peptide (NT-proBNP) indicates impairment of cardiac function and is an important biomarker for the diagnosis and estimation of prognosis in cardiac insufficiency.

### *Ntpro BNP & COVID*

- Factors like SARS-CoV-2 infection and invasion into cardiomyocytes via the binding site of angiotensin-converting enzyme-related carboxypeptidase (ACE2), the pulmonary infection induced by inadequate oxygen supply to the myocardium and the influence of cytokine storm syndrome might also contribute to cardiac injury.
- All these contribute to the elevation of NT-proBNP and indicate a poor prognosis in patients with COVID-19.
- By investigating the prognostic effect of NT-proBNP level in severe COVID-19 patients at admission, it might be helpful to identify patients with a poor prognosis.

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