The 4A classification for patients with tricuspid regurgitation

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Background: Significant Tricuspid Regurgitation (TR) is associated with increased morbi-mortality. Clinical evaluation of TR patients is challenging.

Purpose: To establish a new clinical classification specific for patients with TR, the 4A classification, and evaluate its performance on prognosis.

Methods: Consecutive patients with isolated at least severe TR and absence of episodes of heart failure (HF) evaluated in the Heart Valve Clinic were included. Signs and symptoms of Asthenia, Ankle swelling, Abdominal pain or distention and/or Anorexia were registered, follow up was performed every 6 months. 4A classification ranged from A0 (no A) to A4 (three or four A’s present). A combined endpoint of hospital admission due to right HF and cardiovascular mortality was defined.

Results: 135 patients with significant TR between 2016 and 2021 were included (69% females, mean age was 78±7 years). During a median follow-up of 26 months (IQR: 10–41 months), n=53 patients (39%) reached the combined endpoint. 52 (38%) admitted for heart failure and 11% (n=15) died. At baseline 94% of patients were in NYHA I or II whereas 24% presented A2 or A3. The presence of A2 or A3 showed a high incidence of events (figure). The change in 4A class and GGT remained independent predictor of HF and cardiovascular mortality (adjusted HR per unit of change of 4A class 1.95 [1.37–2.77], p<0.001)

Conclusions: For the first time, we show the use of a new clinical classification, specific for patients with TR based on signs and symptoms of right HF that is prognostic of events.