**CARDIAC INVOLVEMENT IN HUMAN GRANULOCYTIC ANAPLASMOSIS**

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Background: Cardiac involvement in human granulocytic anaplasmosis (HGA) is a rare condition. Severity ranges from mild disease as leakage of cardiac biomarkers to heart failure and death. The clinical characteristic of cardiac involvement in HGA infected patients is not well established. We report a case series of HGA in Massachusetts to evaluate the pattern of cardiac involvement.

Objective: To determine incidence, clinical characteristic and prognostic factor of cardiac involvement in human granulocytic anaplasmosis.

Methods: Historical cohort of 11 cases of HGA who had cardiac biomarkers determined in a community hospital in Framingham, Massachusetts between

2010-2011.

Results: Eleven of 18 patients with HGA had cardiac biomarker checked. Five patients (45.5%) had positive cardiac biomarker. There was no difference in age between the two groups (72.5 ± 11.8 years. vs. 78.4 ± 7.7 years, p=0.36). One patient who was coinfectied with babesiosis developed myocarditis causing clinical heart failure. Complications were also more common in the positive cardiac biomarker group. There was significant association between increased length of hospitalization and positive cardiac biomarker (2.3 ± 2.6 days vs. 8.8 ± 3.7 days, p<0.01).

Conclusion: Patients with HGA and positive cardiac biomarkers seem to have a more complicated hospitalization course as evidenced by higher length of stay. It is unclear if there is a causative link or elevated troponin would be a prognostic indicator. Additional studies with larger samples are required to understand the cardiac involvement in patients with HGA and its implication in the clinical management of the patient.