EUS-FNB in a case of mediastinal adenopathy of unexplained etiology

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A 33-year-old patient with a history of non-ischemic cardiomyopathy with an EF (ejection fraction) of 35%, palpitations and tachycardia was brought to the ER after sustaining a rollover MVA. The patient underwent a trauma work-up that included CT chest and abdomen. On CT scan evaluation, the patient was found to have mediastinal adenopathy and diffuse abdominal adenopathy. The differential diagnosis for lymphadenopathy included lymphoma, sarcoidosis and possibly histoplasmosis.

The patient was evaluated by the Pulmonary service while in the hospital and a bronchoscopy was performed with EBUS-FNA sampling of his subcarinal and hilar lymph nodes; results were non-diagnostic. Subsequent retroperitoneal lymph node biopsy by interventional radiology also did not reveal any evidence of lymph node tissue and was also negative for malignancy or granulomas. Cardiothoracic surgery was then consulted. They recommended EUS-FNB for tissue sampling attempt prior to VATS (video-assisted thoracoscopic surgery), given the patient's poor cardiac function.

A diagnostic EGD was performed and no luminal or submucosal mass was seen. On EUS, mediastinal imaging in the subcarinal and lower paraesophageal region revealed a conglomerate of lymph nodes (approximately 4 cm in size) that were sampled with five passes of the Cook 22 gauge EchoTip ProCore EUS needle. Excellent material was obtained as reported by rapid on-site evaluation by the cytopathologist. Final pathology revealed non-caseating granulomas. Acid-fast bacilli and fungal organisms were not identified with AFB and GMS stains, respectively. The final diagnosis was sarcoidosis. It was felt that the patient's tachycardia and palpitations could be from the underlying diffuse sarcoidosis and thus the patient was started on Prednisone resulting in improvement of symptoms.