**FASCICULAR VENTRICULAR TACHYCARDIA IN A 28-YEAR-OLD MALE WITH FUNGAL INFECTION**

**J.L. Penalver**, M. Zabad, E. Franco, F. Aguilar, S. Basharat, A. Mora, S. Mainigi, B. Cepeda

Einstein Medical Center, Philadelphia, PA, USA

**Background:** Myocardial involvement from Cryptococcus organisms has been reported only in few immunocompromised patients in postmortem studies. The clinical course can be indolent, although fulminant myocarditis has been described. More than one third of non-cardiac infections caused by Cryptococcus organisms are incidentally found in immunocompetent individuals.

**Case:** A 28-year-old Chinese male with history of abnormal heart beat, not on medications, presented on July 2017 for palpitations. He was hemodynamically stable, he was not hypoxic, and he had a heart rate in the 160 range. There was no evidence of immunosuppression in laboratory studies. Electrocardiogram showed a fascicular ventricular tachycardia (VT). A chest radiograph showed a 4-cm round opacity in the right midlung zone. A Chest tomography demonstrated multiple subpleural masses in the right lower lobe, the largest measuring 3.8cm. Speckle tracking echocardiography showed an abnormal strain in the ventricular septum. A cardiac MRI showed a cluster of small subendocardial and intramural foci of late gadolinium enhancement in the inferior wall and mid ventricular septum. High Cryptococcus antigen titers were found in the serum.

The fascicular VT was not consistently controlled with verapamil. A percutaneous biopsy of the lung mass resulted as granulomatous inflammation with presence of Cryptococcus neoformans. He was started on oral fluconazole. Given stability of the patient, we decided that the value of a myocardial biopsy to workup the possible fungal foci in the heart did not outweigh the risks. Due to the recurrence of the rhythm, an electrophysiology study confirmed the fascicular VT which was successfully ablated. He was discharged home on oral fluconazole, on oral verapamil, with a wearable defibrillator, and with an implantable loop recorder. He had no recurrence of arrhythmias on a clinic follow-up visit at 2 weeks and 1 month.

**Discussion:** This case highlights a unique presentation of an indolent Cryptococcus infection, and the challenging management of a fascicular VT (or verapamil-sensitive VT) occurring in the setting of possible infectious structural heart disease.