Case Presentation: AF/VT/VF: Atypical Chest Pain

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Case history

63 year old F with no significant past medical history, with intermittent chest pain especially with exercise x 4-5 years.

Cardiac workup thus far :
- Echocardiogram : Normal LV function
- Coronary angiogram : normal
- Cardiac MRI : Normal without LGE

Over the years, the pain has been attributed to microvascular disease, possible vasospastic angina, anxiety disorder etc. Failed therapy with beta blockers, calcium channel blockers and a variety of other agents.
At baseline without chest pain during echocardiogram

patient symptom-free
With chest pain during echocardiogram

Patient reports chest pain
His bundle position was marked
No correction of the LBBB with His pacing

1.5 cm distal to site of his potential

Site of His capture

Lead rotated in 1-2 o’clock position in RAO
After 4-6 rapid turns into the septum

Unipolar pacing from tip

Qr noted in V1
QRSd 115 ms

Retrograde LBB potential noted 63 ms after the stim
SEPTOGRAM : LAO PROJECTION
AV delay increased from 160 ms to 200 ms

**AV delay 160 ms**
- LB capture
- rSr’
- QRS 115 ms

**AV delay 200 ms**
- Fusion between LB capture and native conduction down the right bundle
- rS pattern
- QRS 90 ms
AV delay 250 ms

Right bundle branch

Left bundle branch

Left bundle branch block persists as conduction occurs down the RB
AV node

Right bundle branch

Left bundle branch

AV delay 200 ms

FUSION: Left bundle branch block resolved as conduction occurs over both LB (LB pacing) and RB (native)
AV delay 150 ms

rSR' in V1 as conduction occurs primarily over the LB due to LB pacing.
Patient had resolution of chest pain post device implant and at 12 months.
At implant: R waves 8 mV, impedance 807 ohms, capture threshold 0.7 V at 0.5ms
At 6 month follow up: R waves 20 mV, impedance 627 ohms, capture threshold 0.75 V at 0.5ms