AED Case Report

John Gallagher MD, FACEP, FAAEM
EMS Medical Director
Phoenix Fire Dept.
Sky Harbor Airport

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History

- 57 year old physician from Scottsdale
- PMH of Paroxysmal Atrial Fibrillation only
- Meds: His Cardiologist recently placed him on Flecainide to prevent A. Fib.
History

- After getting off a plane, he felt dizzy.
- He had shortness of breath
- And chest tightness.
He was unable to feel his own pulse.

He layed down next to a TSA checkpoint.

Took off his shirt and asked the TSA agents to get an AED.

They put the AED pads on his chest and turned it on.
The next slide is the rhythm that he saw on the AED screen.
What is your interpretation?
V. Tach.?
SVT (aberrant)?
A. Fib. (aberrant)?
Wide QRS Tachycardia

- V.Tach. occurs 85-90%
- SVT (aberrant) 10-15%
The patient thought it was V. Tach!

Remember that it was on a AED screen.
No Shock Advised!
He asked the TSA agents if they could override the AED.

They said “No”.

But they could turn it off and then on again

Which they did.
Shock Advised!
Charging!

Stand clear of patient!
He then asked them to push the flashing orange button, which they did.
150 J Shock Delivered!
Within a few seconds, he told the TSA agents that he felt “much better” and then thanked them for “saving his life”.
Phoenix Fire was called.

- Paramedic Engine Co. on scene (4:48)
- The patient was awake and alert.
- Vital signs were normal.
- He did have 2 oval-shaped red marks on his chest.
- He was transported to his hospital after a lidocaine bolus and infusion started.
He was asymptomatic during transport.  
His cardiac workup at the ED was negative. No evidence of acute MI.  
He was later released to follow up with his cardiologist.  
The physician and his cardiologist were sent a copy of the AED rhythms.
Flecainide

- Class 1 C anti-dysrhythmic agent
- Well known to be proarrhythmic
- Prolongs PR, QRS, effective refractory period
- Known to cause Ventricular Tachycardia
Two cases of “Self-Cardioversion” and “Self-Administered Electroshock” have been reported since 1995.
Self-Cardiversion

40 y.o. plastic surgeon felt an electrical shock from a 110-V wall socket. (lamp)
Felt his heart racing, put himself on a heart monitor. Noted rapid A. Fib. 160/min
Felt dizzy—like he was going to pass out.
Self-Cardioversion

- He gave himself 2 (100 J) shocks!
- He fell off the table that he was on.
- Luckily did not hurt himself.
- Subsequent heart monitoring did not show any recurrence of the arrhythmia.

NEJM 332(9):614 Mar. 2, 1995
Self-Administered Electrshock

- 25 y.o. male psychiatric patient
- Brought to E.D. by paramedics
- On a 72 hour hold for a suicide attempt
- PMH: 4 prior suicide attempts (depression)
- Placed in a cardiac monitoring room
Self-Administered Electroshock

- Patient asked for a urinal. Curtain drawn.
- Loud noise heard. Patient fell to ground.
- ED staff found patient with 2 large round red marks on his chest!
- The Zoll 1200 defibrillator automatic print out read 300 Joules had been delivered.
Self-Administered Electroshock

- Patient was monitored for 72 hours.
- Serial EKGs and cardiac enzymes WNL
- Patient was transferred to Psych. Service.

Amer. J. of E.M. 14(1) 115-116 JAN 1996
Questions?