



Things that make you go hmmm.....!

A CASE PRESENTATION.



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Introduction



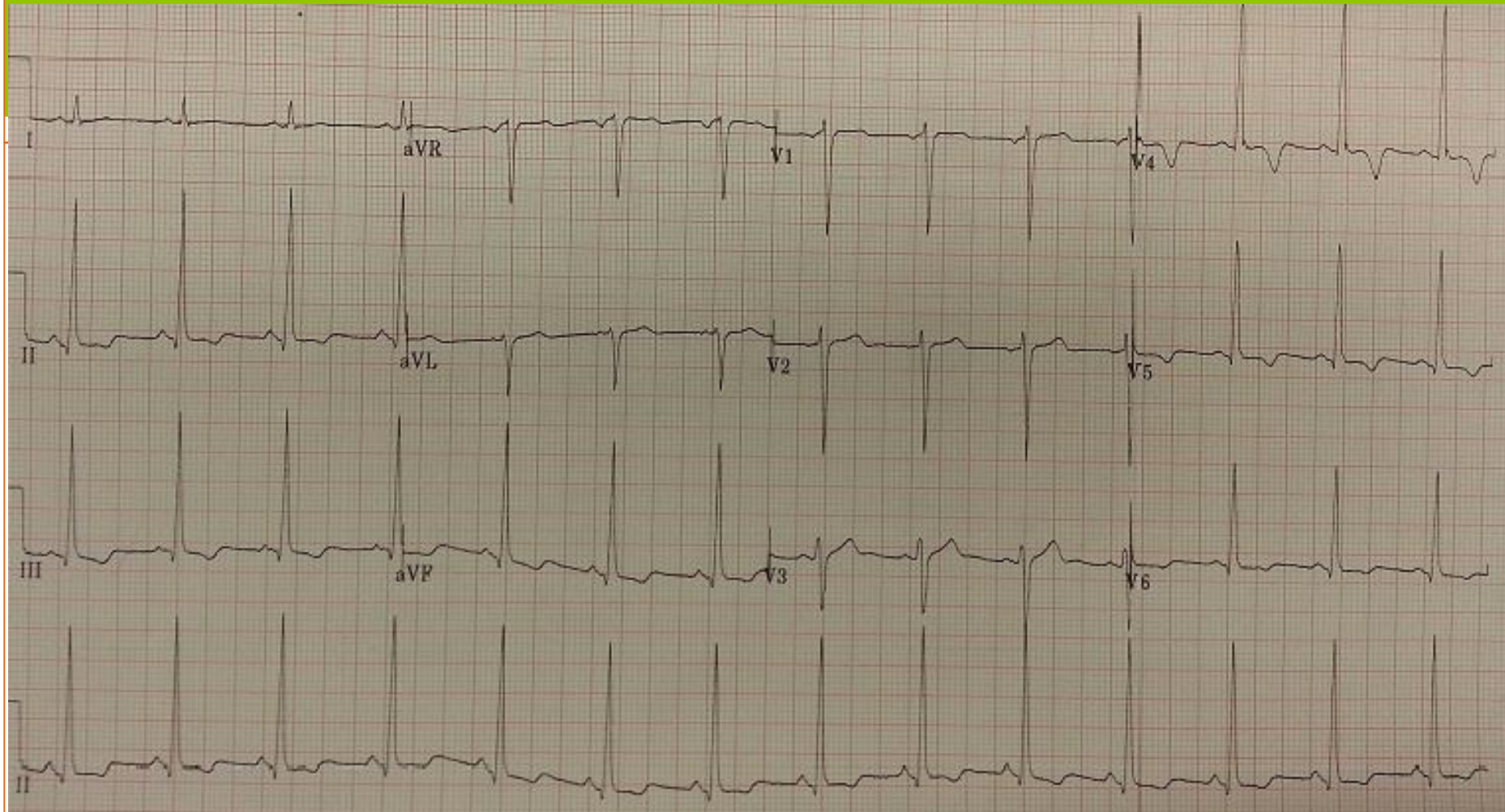
We present a rare case of isolated papillary muscle hypertrophy discovered on bedside echo as a cause for T – wave inversion.



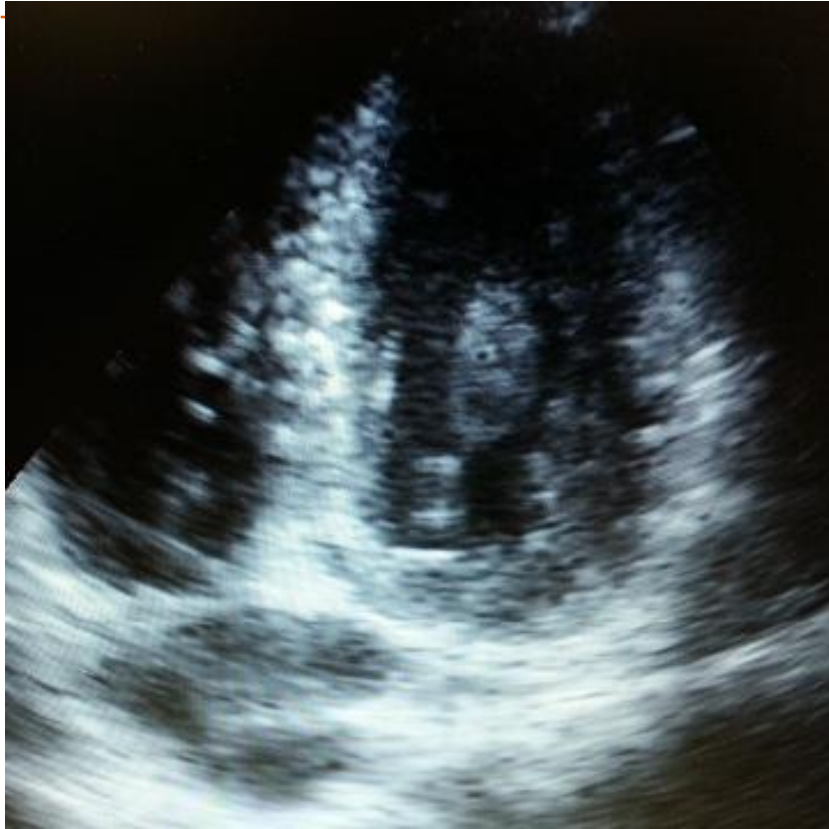
Case description:

- 30 year old male presenting with non-radiating central chest pain. H_x of IV amphetamine use and associated psychosis.
- He was worked up for chest pain with normal FBC, Urea and electrolytes, LFTS.
- Serial Troponin I at presentation and at 6 hours were negative.

ECG: T wave inversion in II, III, aVF, V4-V6.
There were no ST segment changes.



The authors, with an interest in emergency ultrasound, performed a bedside echo to reveal a possible mass within the left ventricle. Further analysis with one of our institution's Cardiologists confirmed this to be isolated papillary muscle hypertrophy.



Discussion:



- Papillary muscle hypertrophy, defined as a papillary muscle diameter of more than 1.1cm, has been described as a possible subtype of hypertrophic cardiomyopathy or an early form of hypertrophic cardiomyopathy.
- Hypertrophic cardiomyopathy is a description of a heterogeneous group of genetic disorders leading to hypertrophy of various segments of the left ventricle.

Discussion



- It has been suggested that a rare (we could only find 4 references to this in the literature) form of HCM is isolated anterior or posterior papillary muscle hypertrophy.
- The true significance of papillary muscle hypertrophy is still unclear. However, as more cases are reported there will be an increasing questions as to what to do with this finding. Current literature supports monitoring only.

Implications:



- ECG repolarisation abnormalities are common but can be caused by rare conditions such as HCM.
- Emergency physicians regularly perform bedside echo and should be aware of papillary muscle hypertrophy as an abnormality requiring further investigation/observation.

Our patient was asymptomatic at discharge and referred to his general practitioner for formal echocardiography follow-up. He has subsequently had a few presentations with drug induced psychosis but as yet.... no echo.