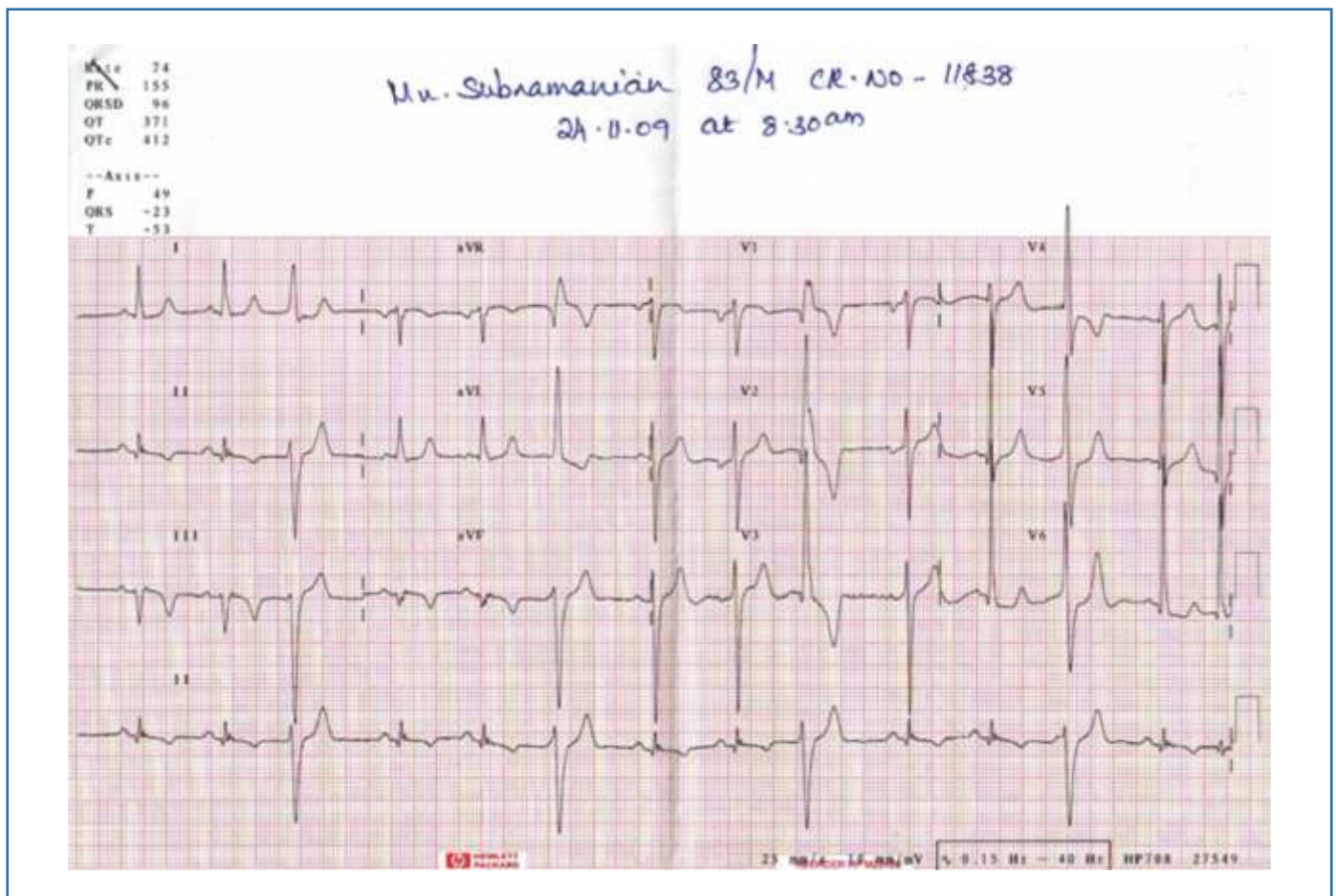


ECG Excursions

ECG 8

Aetiology, Echo, CAG, EP study and Management (vascular, muscular, electrical) seen in 10 seconds.

ECG of 83 old patient with known CAD with BOE and intermittent giddiness.



1. Describe all ECG changes
2. Why is this clue?
3. What are practical implications?

ECG EXCURSIONS – ECG 8 ANSWERS

ECG shows Basic Sinus Rhythm, fully evolved Inferior Wall Myocardial Infarction

(IWMI) Leftward axis, Left atrial abnormality in V1 and LV enlargement

(Voltage Criteria).



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In addition, patient has frequent VPDs in trigemini arising from the region of left Posterior fascicle (VPDs showing RBBB with LAFB pattern) In V1,V2 and V3, the VPDs show initial q wave.

CLUE:

I ETIOLOGY & ECHO

a. CAD –IWMI

The initial q in V1- V3 is suggestive of septal MI unmasked by VPDs even though basic sinus beats are not showing this.

b. LV Enlargement.

(Volume Overload):

The volume Overload in LV in the presence of Left Atrial Abnormality is likely to be due to Mitral Regurgitation.

c. The deep terminal negative force of P in V1 is also suggestive of LV dysfunction .

So, the breathlessness is likely to be due to CAD induced LV dysfunction and Probable MR.

II. CAG

The IWMI is probably due to RCA because to deepest Q seen in LIII.

In view of IWMI and ASMI which is unmasked by VPDs, patient is likely to have RCA and LAD disease .

III. EP STUDY

a. As mentioned above VPD is arising from the region of left posterior fascicle (Scar area of IWMI).

b. The VPDs are frequent.

c. VPDs occur in the presence of MI and LV dysfunction



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In view of above factors these VPDs are likely to be malignant especially when the patient has giddiness which may be due to malignant ventricular arrhythmia.

So, these VPDs have to be suppressed.

(Management is discussed below in practical implication)

PRACTICAL IMPLICATION:

1) CAD MANAGEMENT (VASCULAR)

Because of the patient`s age CAG and Revascularisation is individualised depending upon the symptoms and comorbidities.

2) MANAGEMENT OF LV DYSFUNCTION (MUSCULAR)

In addition to Carvedilol , Patient requires ACE inhibitor or ARB or ARNI as well as Diuretics if there is congestion.

3) VPD MANAGEMENT (ELECTRICAL)

The preferred drug is Carvedilol in view of CAD and LV dysfunction.

A Holter study may be needed to decide about ablation or ICD.

As this ECG recording of 10 seconds has given us various crucial Information regarding different aspects patient's cardiac disease the clue of "Aetiology ,Echo ,CAG,EP study and Management (vascular, muscular, electrical) seen in 10 seconds" is given.

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