# E.C.G. QUIZ

Pages with reference to book, From 224 To 225

Asadullah Kundi, Azhar Faruqui (National Institute of Cardio-Vascular Disease, Karachi.)

### **Case History**

A 35 Years old female was brought to the emergency room with history of episodic palpitations, dizziness and typical precordial pain. Her father had died of myocardial infarction and her mother is hypertensive. Physical examination was unrevealing except for BP of 160/90 m.m. Hg. ECG done in the emergency room (Fig. 1.) shows:-

- A) Complete L.B.B.B.
- B) Acute Myocardial Infarction.
- C) Left Anterior hemiblock.
- D) Left ventricular hypertrophy.
- B) None of the above.

Regarding Immediate Treatment you would:

- 1) Reassure the patient and discharge her on beta blockers.
- 2) Give Injection pethidine and hospitalize her with complete bed rest.
- 3) Put in a temporary pacemaker prophylactically.
- 4) Start antihypertensive treatment.
- 5) Start on digoxin.

Which of the following tests will be most helpful in confirming the diagnosis:-

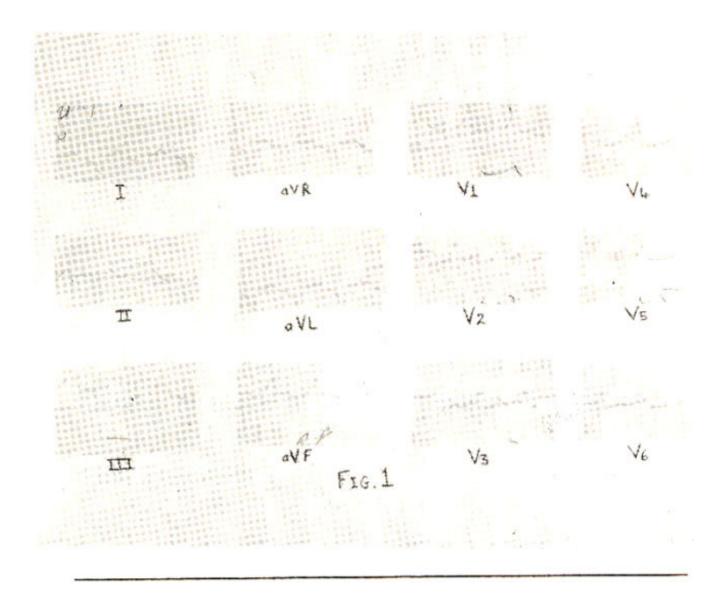
- i) Coronary Angiogram.
- ii) Holter Monitoring.
- iii) Right heart catheterization.
- iv) Echocardiography.
- v) 24 Hr.urine for V.M.A. estimation.

Regarding the prognosis of the patient, you would say she:

- a) Has a very high incidence of sudden death compared to normal population.
- b) Has a normal llfe expectancy in the absence of associated diseases.
- c) Has a tendency of recurrent ventricular tachycardia and therefore a high risk if left untreated.
- d) Has a high risk of developing complete heart block.

Correct Answers to ECG Quiz

E) None of the above.



Note: The ECG shows typical WPW (Wolff. Parkinson-White) Syndrome or pre-excitation with (i)Short PQ interval of 0.10 secs.; (ii) Delta wave or slurring on the upslope of the QRS; (iii) Broadened QRS with QRS duration of 0.12 seconds and (iv) Secondary ST and T wave changes during double activation of the ventricle from the abberrant atrioventricular Bundle of Kent in addition to the normal conduction down the atrioventricular Bundle of His.

1) Reassure the Patient and discharge her on beta blockers.

Note: As the patient is not having the runs of PAT (Paroxysmal Atrial Tachycardia) at the time of presentation, there is no use to admitting such patients. Chronic use of beta-blockers, calcium blockers like verapamil or the new antiarrythmic Ami darone are very helpful in reducing the frequency of the PAT episodes.

## ii) Holter Monitoring

Note: This is most likely to document short episodes of PAT which occur frequently in some patients with WPW Syndrome. Many recordings may have to be done before an episode can be documented.

(b) Has a normal life expectancy in the absence of associated diseases.

Note: Most patients. with isolated WPW Syndrome and no other underlying organic heart disease lead an otherwise full and normal life with no increased risk of sudden death.

In summary, WPW Syndrome, not uncommon in young age, can minick myocardial Infarction. Wrongly labelling a young patient as having myocardial infarction can have devastating psychosocial

consequences. An important habit which will prevent missing this benign condition is the routine of measuring PR interval particularly in an ECG with a broad QRS with or without ST-T wave changes.

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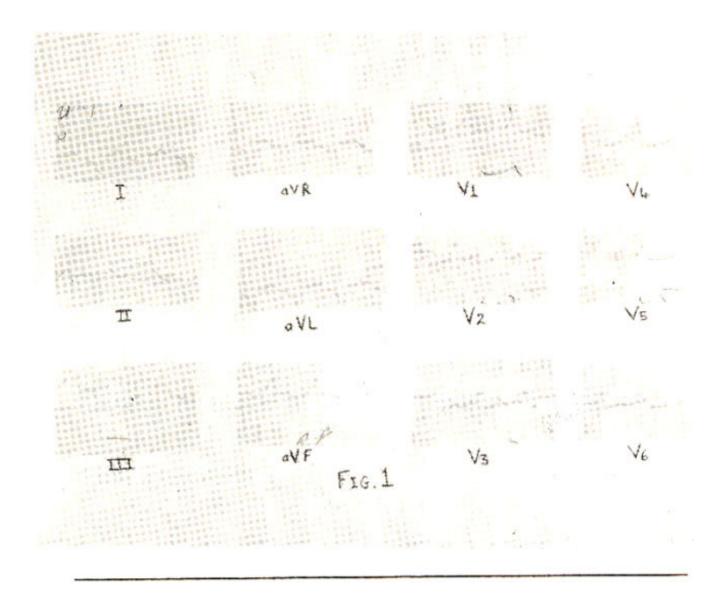
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