Refractory Paroxysmal Atrial Tachycardia (PAT) During Pregnancy*

By

Faud Sheriff, Sultan A. Shah and Azhar M.A. Faruqui

There is increased susceptibility to various arrythmias including PAT during pregnancy[1], which becomes maximal late in term and during labour. Besides drugs, synchronous d-c cardioversion appears to be a safe mode of therapy for PAT[2].

We present here the case of a primigravida, with no organic heart disease in her fifth month of pregnancy, with resistant PAT, who responded only to a combination of Quindine and Propranolol but failed to respond to these two drugs alone, Verapamil, Digoxin and d-c cardioversions.

Case History:

A 25 years old patient in her fifth month of pregnancy presented in the casualty department in September, 1982, with the c/o palpitation for 3 days. Haemodynamically, the patient was stable. Resting ECG showed PAT (Fig. 1).

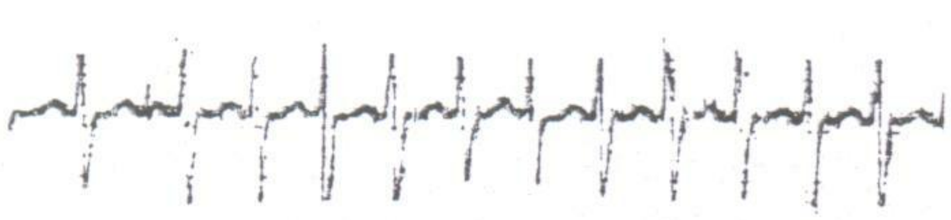

Fig. 1: ECG rythm strip showing run of PAT at rate of 214/minute ond normal QRS morphology.

An attempt to convert the PAT to sinus rhythm was made in the emergency room with Inj. Antazoline, Edrophonium, Physostigmine and digitalisation of the patient. She was admitted and put on one Tab. Digoxin 0.50 mg. daily. Even though her blood pressure remained low throughout (80/50 mm Hg), she was in no distress and perfusing well and stable. After few days of no change Inj. Verapamil 10 mg I/V was tried with only transient 2:1 block and oral verapamil for several days was ineffective. Atrial pacing was also done in an attempt to override the PAT but failed. After two weeks of these attempts d-c cardioversion was attempted thrice which also failed. Patient finally responded to a combination of Quinidine 200 mg. six hourly and Propranolol 40 mg. eight hourly for several days, and was discharged in normal sinus rhythm with B.P. of 120/70 mm Hg. During her stay she was examined twice by an obstetrician who found the pregnancy undisturbed.

Discussion:

PAT is not infrequent during pregnancy[3]. 19 cases of PAT were collected by Jenson upto 1938[4].. 10 cases were observed by Szekely and Snaith over a 10 years period[5]. In the absence of structural heart disease the arrythmia usually did not interfere with the course of normal pregnancy. Mendelson collected 16 such cases at the New-York Lying-In Hospital during a 23 years period[6]. Synchronised d-c cardioversion is reportedly safe and effective mode of therapy for PAT[2] through it did not convert the above mentioned case. Quinidine was not introduced initially for fear of inducing abortion.

*From the National Institute of Cardiovascular Diseases (Pakistan), Karachi.

However, there was no complication in starting and maintaining this patient on Quinidine plus Propranolol.

In conclusion, refractory PAT may be seen in patients during pregnancy with no organic heart disease. While d-c cardioversion and overdrive atrial pacing can be carried out safely, it may not be successful. Drug treatment may be the only effective means in these patients. Quinidine was used with no side effects in the normal maintenance doses.

References:

1. Sussman, H.F., Duque D., and Lesses, M.E.: Atrial Flutter with 1:1 A-V conduction. Dis. Chest. 49:99, 1966.
2. Schroeder, John S. and Harrison, Donald C;: Repeated cardioversion during Pregnancy. American Journal of Cardiology. 27:445, April, 1971.
3. Szekely P., Snaith L: Heart Disease and Pregnancy 1974. Churchial Living-stone, p. 90.
4. Jensen, J: The Heart in Pregnancy. St. Louis, C.V. Mosby 1938.
5. Szekely, P., and Snaith, L.: Paroxysmal tachycardia in Pregnancy. British Heart J., 15:195, 1953.
6. Mendelson C.L.: Disorders of the heart beat during pregnancy. Amer. J. Obset. Gynaec. 72:1268, 1956.

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