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CASE REPORT

Cesarean Section in Third Degree Heart Block with Severe Hypertension

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Introduction

Pregnancy complicated with complete heart block is rare and has usually required termination of pregnancy in the past. But lately cardiac pacing has allowed these women to proceed to term. Maternal and neonatal outcome is not affected in asymptomatic cases [1, 2]. A team approach in management, results in a good outcome.

Case report

A 26 year old, gravida two, para one, was admitted with 32 weeks of pregnancy and a complete heart block and severe hypertension with intra uterine growth restriction ECG confirmed the diagnosis of complete heart block. Echocardiography showed evidence of trivial tricuspid regurgitation.

Cardiologists opinion was sought for high blood pressure and complete heart block. She was put on two additional antihypertensive agents (Tab. Amlodepine 10 mg once a day and Tab. Cardace 1.25 mg once a day). As her blood pressure continued to remain high, the dose of Tab. Cardace was increased to 10 mg once a day. Blood pressure got settled to 130–140/90 mmHg. Maternal and fetal monitoring was continued. She was put on Haulter monitor for 24 h to assess the need of cardiac pacing. She went in spontaneous labour on 18 April 2008.

In view of severe growth restriction, hypertension, oligohydramnios and unfavourable cervix, a decision to perform a cesarean section under general anesthesia was taken. In view of persistent bradycardia below 45 beats/min, a decision to avail of temporary pacing taken. Temporary transvenous cardiac pacing was done by interventional cardiologist in intensive care unit by inserting a bipolar pacing electrode via subclavian vein up to the apex of right ventricle, under ultra sonographic guidance. Position of the pacemaker was confirmed by X-ray. The heart rate was artificially adjusted to 60 beats/min. It was decided to pace the heart only when heart rate dropped down below 50 beats/min.

Cesarean section was carried out under general anesthesia. She delivered a female preterm baby with birth weight of 1.3 kg with good Apgar score. There was need of cardiac pacing twice during surgery because of development of ventricular ectopics (Fig. 1).

There was no intra operative complication, however, She developed bradycardia twice on first postoperative day, which was managed by cardiac pacing. Subsequently her heart rate remained steady at the rate of 50–60 beats/min. She was asymptomatic in postoperative period. Prophylactic antibiotics were continued for 7 days. The temporary pacemaker was removed on third postoperative day with an advice for permanent pacemaker.

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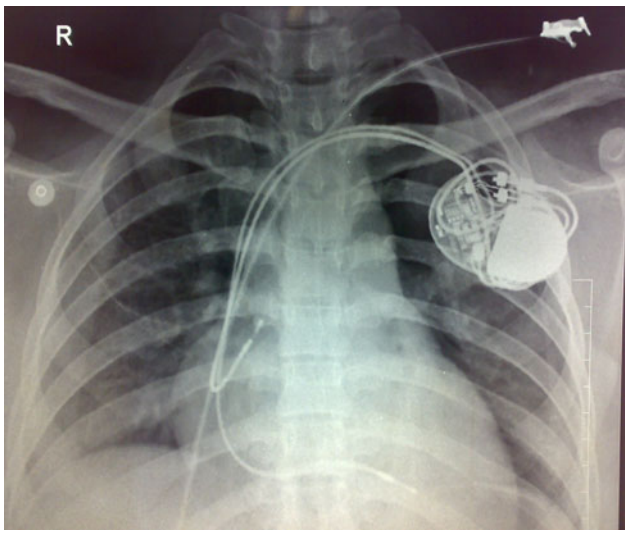

Fig. 1 Chest radiogram showing permanent pacemaker in situ

Discussion

Complete heart block is rare during pregnancy. Majority of cases remain asymptomatic and do not need any active intervention during pregnancy or delivery [3]. Permanent cardiac pacing is advocated in symptomatic cases during first and second trimester. Women may become symptomatic during labour due to further slowing of heart rate due to valsalva manoeuvre during second stage [4]. Temporary pacing helps to prevent cardiac complications during cesarean section [5].

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