Caesarean birth with complete heart block under combined spinal epidural: A case report.

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Introduction

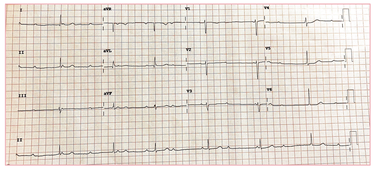
Complete heart block in pregnancy is rare with estimated incidence of around 1:15,000 (1, 2). We present expedited delivery of a patient who was found to be in complete heart block with narrow complex escape rhythm. She was delivered uneventfully via caesarean birth under combined spinal epidural anaesthesia.

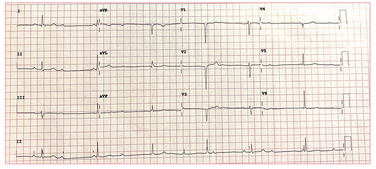
Presentation and History

A 30 year old patient (P1+0) presented at 40+1 with reduced foetal movements. Routine monitoring showed a heart rate of 35 beats per min. A 12 lead ECG demonstrated complete heart block with narrow QRS escape. Cardiology opinion was sought. Echocardiography demonstrated normal LV function and no structural defects.

A review of history noted that the patient was asymptomatic except for an episode of syncope following high intensity exercise 7 years ago. An ECG 4 years ago during an anaesthetic for a surgical procedure showed complete heart block. There were no records if complete heart block was followed up at that time.

ECGs





MDT

Following an emergency multi-disciplinary team (MDT) meeting with obstetric, anaesthetic and cardiology teams insertion of temporary pacing lines was deferred. A decision to deliver her by planned caesarean birth during daylight hours was made and the plan was discussed with the patient. Informed consent was obtained. She was monitored in the Obstetric High Dependency Unit (HDU) overnight.

Choice of Anaesthetic Technique

Basic monitoring
+
Arterial line

CSE (needle through needle)
2ml of 0.5% Heavy Bupivacaine + 300mcg Diamorphine

Block to T6
Gradually increased with 2% lidocaine with 10ml of 1:200,000 adrenaline
Block to T4

BP maintained on Phenylephrine 20mcg/ml
infusion

Potentially difficult to site
Epidural may not have worked
Vs
Gradual onset of vasodilation
Awake for surgery
Gradually titratable block height

CSE

High block impeding cardiac sympathetic supply
Mediation of profound vasodilation
Vs
Awake for surgery
Good block to T4

Spinal

Risks associated with Obs GAs
Potential Arrhythmic effect of volatile
Vs
Control in dire emergency
Patient comfort if externally paced

General Anaesthetic

Intraoperative Events

Uneventful procedure healthy female infant
400ml Blood loss

Patient managed in HDU post op with continuous ECG monitoring

Risk of worsening bradyarrhythmia intra op

Potential need for transthoracic pacing

No

To Pace **or** Not to Pace

Yes

Patient was asymptomatic
Condition long standing
Presence of junctional escape rhythm
20% complication risk (3)
Radiation exposure (4)
Time constraints

References

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