

Heart block in pregnancy, pacemaker or not: A case report

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ABSTRACT

Introduction: Heart block is rarely seen at the first presentation during pregnancy and is challenging to manage. **Case Description:** A 22-year-old primigravida was noted to have asymptomatic maternal bradycardia during antenatal follow-up at 25 weeks. She was then admitted for further evaluation in a heart centre. A temporary pacemaker was inserted while completing the evaluation. Investigation shows second degree AV heart block 2:1, but otherwise normal echocardiogram, thyroid function test, electrolytes and autoimmune disease screening. Exercise stress test and atropine test both shows improving heart rate and she remains asymptomatic. Temporary pacemaker was then removed. A multidisciplinary team involving Obstetricians, Cardiologist and Anaesthetist were involved in her care. She will have delivery at tertiary hospital with close monitoring. Mode of delivery will be depending on obstetric indication. **Discussion:** Generally, heart block does not cause pregnancy related issues during antenatal period, especially those that are asymptomatic. However, some studies reported incidence of IUGR or preterm delivery. For patients that have heart block during pregnancy, it is important to ascertain if the heart rate is able to compensate for the process of labour. Asymptomatic women who responded to exercise or atropine by an increase in heart rate were managed without pacemaker. It is however indicated in the presence of symptomatic HB (chest pain, syncope, palpitations), Q-T interval prolongation, wide QRS complex, ventricular dysfunction, or heart failure. As this patient fulfils the criteria for not requiring pacemaker, her temporary pacemaker was removed, and she was given follow up for further assessment during pregnancy.

COL3A1 rs1800255 polymorphism associated with the probability of pelvic organ prolapse case: A systematic review

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ABSTRACT

Introduction: Pelvic organ prolapse is a case that occurs in women in both developed and developing countries and is commonly found in health facilities. Many factors are considered risk factors for prolapse. The occurrence of pelvic organ prolapse is closely related to the integrity of the supporting structures of the pelvic floor. Previous studies have found that elevated levels of type III collagen occur in women with pelvic organ prolapse. This paper systematically evaluates the association of the COL3A1 rs1800255 polymorphism with the probability of pelvic organ prolapse cases. **Methods:** A systematic review was conducted through PubMed, Google Scholar, Cochrane library, and ScienceDirect databases using a combination of Medical Subject Heading (MeSH) terms and relevant keywords. The setup follows PRISMA guidelines. **Results:** The results of studies included in the review tend to vary across the study population in certain countries or races, for example, Caucasians. There is a conclusion that the probability of pelvic organ prolapse is higher in women with COL3A1 rs1800255 polymorphism. This probability increases with other risk factors such as aging, vaginal delivery, and hypoestrogenism. Nonetheless, another study concluded that the COL3A1 rs1800255 polymorphism was not associated with pelvic organ prolapse. **Conclusion:** The COL3A1 rs1800255 polymorphism may be associated with pelvic organ prolapse in certain populations. Contradictory results indicate the need for further studies on the risk of certain types of collagens in pelvic organ prolapse and then comparing different populations.