

Pregnancy in a Patient with Sick Sinus Syndrome and a Permanent pacemaker

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Objectives

- Sick sinus syndrome (SSS) is a disorder of the sinoatrial node characterized by impaired pacemaker function and abnormal impulse transmission, resulting in arrhythmias.
- These include atrial bradyarrhythmias, tachyarrhythmias, and occasionally a combination of bradycardia and tachycardia.
- Such arrhythmias may manifest as palpitations, fatigue, lightheadedness, pre-syncope, and syncope due to decreased tissue perfusion.
- Definitive treatment involves replacing the defective pacemaker with a synthetic one. With well-functioning pacemaker support, patients with SSS can achieve successful pregnancy outcomes.
- However, pregnancy may exacerbate symptoms such as palpitations, dizziness, fatigue, and in severe cases of SS, can get complications like preterm labor .

Case Report

- We report a case of a 29-year-old woman in her first pregnancy who was diagnosed with SSS three years prior, after presenting with recurrent blackouts.
- She underwent permanent pacemaker implantation, which significantly improved her symptoms, with only occasional episodes of palpitations. She was maintained on cardioselective beta-blocker therapy with bisoprolol, and her pacemaker function was closely monitored.
- During her pregnancy, she remained under close follow-up with cardiologists. While she experienced occasional palpitations, her symptoms were otherwise well-controlled. Bisoprolol therapy was continued throughout her pregnancy, with serial fetal growth scans performed to monitor for potential growth restriction due to beta-blocker use. The fetal growth remained within normal limits.
- At 39 weeks of gestation, she went into spontaneous labor. Epidural analgesia was provided for pain relief, and she had a successful vaginal delivery without complications

Discussion

- In patients with IIH and having LP shunts, pregnancy should be closely monitored for the development of signs and symptoms of raised intracranial pressure.
- If having a vaginal delivery it is advisable not to have prolonged expulsive effects in the second stage, particularly when the shunt is malfunctioning.
- For the CS general anaesthesia is advised over spinal anaesthesia due to the risk that anaesthetic medications may leak into the peritoneal cavity. But in high-risk patients like obese and having difficult airways spinal anaesthesia can be used.

Conclusion

- Patients with LP shunts can have successful pregnancy outcomes with multidisciplinary input and close follow-up, although complications are common.