THE MISSING HEARTBEAT

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INTRODUCTION

Sick sinus syndrome (SSS) is characterized by abnormal sinus node function, leading to irregular conduction of electrical impulses. Clinical manifestations include dizziness, presyncope, or syncope, often accompanied by arrhythmias on ECG. Treatment typically involves permanent pacemaker insertion unless a reversible cause is identified.

CASE REPORT

Mrs. A, a 70-year-old woman with underlying diabetes, hypertension, hyperlipidemia, and newly diagnosed atrial fibrillation, presented with recurrent episode of syncopal attacks. Upon arrival, she was stable with an irregularly irregular pulse and AF on ECG. During monitoring, she experienced episodes of syncope with sinus pauses and junctional bradycardia. Initial treatment included oxygen supplementation, IV Atropine, and subsequent transcutaneous pacing before transfer for permanent pacemaker implantation.

DISCUSSION

Sick sinus syndrome is a disease that can affect women and men equally and it can occur at any age. But most of the cases affected people who aged over 70 years old,this is due to aging process tends to slow the heart rate and lower the function of SA node. Causes of sinus node dysfunction are generally categorized as intrinsic or extrinsic based on their effect on the SA node. The intrinsic causes originate from structural or functional changes within the SAN. The extrinsic causes are related to external factors causing abnormal conduction at the SAN. Clinical presentation of sick sinus syndrome is a result from the hypoperfusion of end organ and about 50% patients will have present with symptoms of the cerebral hypoperfusion such as syncope, presyncope, lightheadedness, and cerebraovascular accident (CVA). Other associated symptom such as chest pain, shortness of breath, palpitation and reduced effort tolerance.Our patient's history and presentation suggestive of sick sinus syndrome. Adding on ECG finding that showed sinus bradycardia, sinus pause arrest and brady-tachycardia syndrome.The definitive treatment for Sick sinus syndrome after correcting the reversible causes is a permanent pacemaker, which is recommended for symptomatic patients not in order to improve survival but rather to improve quality of life.

CONCLUSION

Patient with history of multiple episodes of syncopal attack should be investigated for causes. This is because syncopal attack of cardiac origin can lead to death especially in elderly. Early management with transcutaneous pacing can help to prevent further episodes of syncope. Patient with sick sinus syndrome required permanent pacemaker for definitive treatment as there are no medication available that can prevent episodes of syncope to occur.

Keywords: Sick sinus syndrome, syncope, pacemaker