

Intraoperative Ventricular Ectopy Unmasking Undiagnosed Mitral Valve Prolapse During Total Abdominal Hysterectomy Under Regional Anaesthesia

Dr. C. Ramya¹, Dr. Prasad K Kulkarni², Dr. Shilpa S.³

MVJ Medical College and Research Hospital, Hoskote, Bangalore – 526114, Karnataka, India

Email: ramya.cb786[at]gmail.com

Abstract: *Mitral valve prolapse (MVP) is a common valvular abnormality with a prevalence of approximately 2–3% in the general population. Although frequently benign and asymptomatic, MVP has been associated with ventricular arrhythmias in susceptible individuals. Routine preoperative evaluation may fail to detect clinically silent cases, posing potential intraoperative challenges. We report a case of a 43-year-old woman scheduled for elective total abdominal hysterectomy under combined spinal–epidural anaesthesia. Preoperative assessment, including electrocardiography, was unremarkable except for moderate anaemia. Shortly after administration of regional anaesthesia, frequent ventricular ectopic beats were observed on continuous electrocardiographic monitoring. The patient remained haemodynamically stable, and the surgical procedure was completed uneventfully. Postoperative transthoracic echocardiography revealed previously undiagnosed mitral valve prolapse. This case underscores the importance of vigilant intraoperative monitoring and consideration of underlying structural cardiac abnormalities when unexplained ventricular arrhythmias occur during regional anaesthesia.*

Keywords: Mitral valve prolapse; Ventricular ectopics; Total abdominal hysterectomy; Regional anaesthesia; Intraoperative arrhythmia; Undiagnosed cardiac disease.

Summary

Mitral valve prolapse is one of the most frequently encountered valvular heart conditions and is often clinically silent. While many patients remain asymptomatic, MVP has been linked to ventricular arrhythmias due to mechanical and autonomic factors affecting myocardial excitability. Anaesthetic-induced haemodynamic changes, particularly during neuraxial blockade, may precipitate arrhythmias in predisposed individuals.

We describe the case of a 43-year-old woman with dysfunctional uterine bleeding who was posted for elective total abdominal hysterectomy under combined spinal–epidural anaesthesia. Preoperative evaluation revealed no cardiac abnormalities on clinical examination or electrocardiography. During surgery, frequent ventricular ectopic beats were noted following neuraxial blockade. The patient remained haemodynamically stable throughout the procedure, and surgery was completed without complications. Postoperative echocardiographic evaluation confirmed mitral valve prolapse.

This case highlights that structurally significant cardiac conditions may remain undiagnosed despite normal preoperative screening. Continuous intraoperative ECG monitoring and prompt postoperative cardiac evaluation are essential when unexpected arrhythmias occur. Early recognition helps prevent potential complications and ensures safe perioperative management.

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