

Diagnostic Dilemma in a Case of Pneumothorax after Brachial Plexus Block

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Abstract: *This article explores the application and implications of ultrasound-guided brachial plexus blockade in a trauma patient with upper extremity injury and blunt chest trauma. A 33-year-old male patient, involved in a road traffic accident, presented with a Galeazzi fracture and chest trauma but no significant comorbidities. Despite stable intraoperative vitals under ultrasound-guided brachial plexus block for an open reduction and internal fixation with plating, the patient developed postoperative complications including difficulty in breathing and decreased oxygen saturation, leading to the diagnosis of bilateral pneumothorax. Subsequent imaging revealed multiple rib fractures, necessitating the placement of an intercostal chest drain. This case highlights the potential for delayed onset pneumothorax in blunt chest trauma patients, posing diagnostic challenges in the postoperative setting. The findings underscore the necessity of vigilant postoperative monitoring and the potential benefits and risks associated with regional anesthesia in trauma-induced surgeries.*

Keywords: Ultrasound-guided brachial plexus block, Galeazzi fracture, blunt chest trauma, delayed onset pneumothorax, postoperative complications

1. Introduction

Brachial plexus blockade is a regional anesthetic technique used as an alternative or adjunct to general anesthesia or used for postoperative pain control for upper extremity surgeries. Ultrasound guidance has rendered the technique to be safer than the blind technique

2. Case Report

A 33-year-old male patient came with RTA with blunt trauma of chest and with right Galeazzi fracture, with no comorbidities, associated with pain in the back. Pre-anesthetic evaluation was done, and case was accepted under ASA II and planned for ORIF with Plating under Ultrasound guided brachial plexus block. Intraoperative vitals stable. Postoperatively patient was complaining of difficulty in breathing and room air saturation was 92%, hence chest Xray was repeated which showed bilateral pneumothorax. CT chest was done which showed B/L 2nd to 10th rib fracture following which Intercostal chest drain was put on right side. Patient was maintained on oxygen supplementation with saturation of 96%.

3. Conclusion

Blunt trauma chest patient can have a delayed onset pneumothorax which can lead to diagnostic dilemma in a post operative patient.

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