

Blue Color Change after Videothoroscopic Sympathicotomy for Primary Palmar and Axillary Hyperhidrosis

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Case Blog

Introduction

In this study, we aimed to present a case of methemoglobinemia after bilateral uniport Videothoroscopic Sympathectomy (VTS).

Case Presentation

A 21-year-old female patient underwent VTS at T2-3-4 levels after local anesthesia with 20 mL 0.5% bupivacaine injection (100 mg total) to bilateral third intercostal space and general anesthesia due to primary palmar and axillary hyperhidrosis (Figure 1). Cyanosis was inspected in the patient's nail at 5th hour postoperatively, the arterial blood gas analysis (ABG) was; pH: 7.42, PO₂: 97.6 mmHg, PCO₂: 31.2 mmHg, SaO₂: 98%, and MetHb: 7.7%.

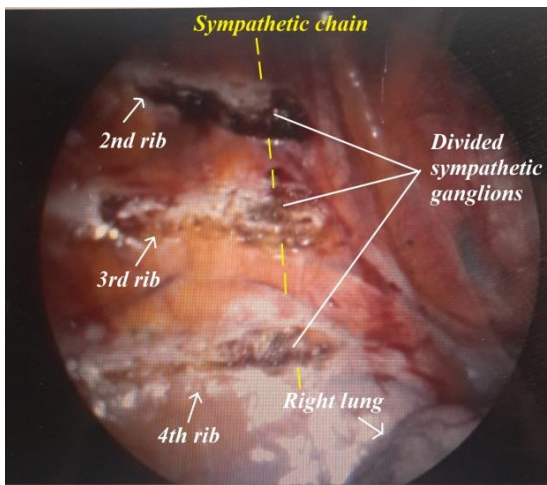


Figure 1: Intraoperative view.

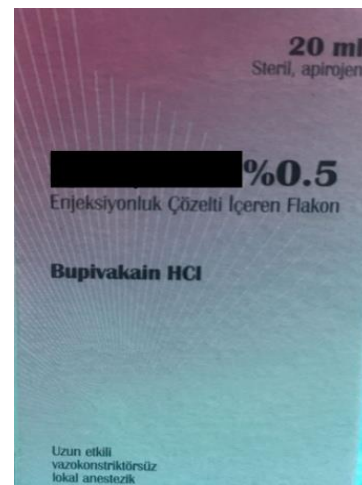


Figure 2: Preparation of Bupivacaine.

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Figure 3: Cyanosis of the nails.

High-rate of MethHb in this case was diagnosed as bupivacaine induced methemoglobinemia by excluding other causes of cyanosis (Figure 2 and Figure 3).

After oxygen therapy (4 L/min) and ABG follow-ups, cyanosis of the case started to decline and MethHb was measured in the normal range at 12th hour ABG. Patient was discharged in postoperative 1st day.

Discussion

Methemoglobinemia is the clinical table showing the development of hypoxemia with the oxidation of hemoglobin iron, which is exposed to oxidants such as local anesthetics commonly used in surgical practice [1]. As noted in this case, methemoglobinemia should come to mind when unexpected cyanosis develops after local anesthetic use. In our department, this complication developed for the first time in 108 cases treated with VTS between 2005-2017 [2].

References

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