Methemoglobinemia Precipitated by Benzocaine Used During Intubation

Afzal A, Collazo R, Fenves AZ, Schwartz J. Proc (Bayl Univ Med Cent). 2014 Apr;27(2):133-5.

Methemoglobinemia is a rare cause of tissue hypoxia that can quickly become fatal without immediate recognition and prompt treatment. It refers to an increase in methemoglobin in the red blood cells, which can be due to genetic deficiency of the enzymes responsible for reducing hemoglobin or can develop after exposure to oxidizing agents or xenobiotics. Local anesthetics, particularly benzocaine, have long been implicated in the formation of methemoglobin. Benzocaine is used for teething pain as well as before invasive procedures such as intubation and transesophageal echocardiogram.

In this case report, we describe a patient with acute appendicitis who developed severe methemoglobinemia following use of benzocaine during an emergent intubation. Our objective is to increase awareness of this rare but potentially fatal complication associated with the use of this anesthetic.