

Hardison LS Jr1, Wright E, Pizon AF. Phosgene exposure: a case of accidental industrial exposure. J Med Toxicol. 2014 Mar;10(1):51-6.

INTRODUCTION:

Phosgene is a rare exposure with strong clinical implications. We report a phosgene exposure that resulted in the patient's death.

CASE REPORT:

A 58 year-old man arrived to the emergency department 1 hour after exposure to phosgene with complaints of a sore throat. Initial vital signs were blood pressure 175/118 mmHg, heart rate 98/min, respirations 12/min, and oxygen saturation of 93% on room air. Physical exam revealed few scattered rhonchi, without signs of distress. Initial arterial blood gases (ABG's) revealed pH 7.42, pCO₂ 43 mmHg, pO₂ 68 mmHg, HCO₃ 27 meq/L, and oxygen saturation of 93% on room air. Initial chest x-ray 2 hours after the exposure demonstrated clear lung fields. Approximately 2.5 hours after the exposure, he began complaining of dyspnea, restlessness and his oxygen saturation dropped below 90%. He received nebulized albuterol, 1 gram intravenous methylprednisolone, and 100 % oxygen via face mask. Minimal improvement was noted and he was intubated. The post intubation chest x-ray, 3.5 hours after the exposure, revealed diffuse alveolar infiltrates. Acetylcysteine, terbutaline, and IV steroids were administered without improvement. The patient died 30 hours after exposure.

DISCUSSION:

There are many misunderstandings concerning phosgene due to its rare presentation. Traditional treatment modalities are often unproven in human trials and were unsuccessful in this case.

CONCLUSION:

This case highlights the significant toxicity that results from phosgene exposure and the challenges of the limited treatment modalities. There is concern for the use of this agent in chemical terrorism.