

P111. CARBON MONOXIDE (CO) POISONING

Arzu EROĞLU¹, Bayram YÜKSEL¹, Berrin Imge ERGÜDER²

¹Ankara Police Forensic Laboratory, Turkish National Police, Ankara, TÜRKİYE

²Ankara University, Faculty of Medicine, TÜRKİYE

Carbon monoxide (CO) is a colorless, odourless and tasteless gas that is slightly less dense than air. It is formed in the process of incomplete combustion of organic substances, including fuels. CO intoxication is one of the most common types of poisoning all around the world. We are all exposed to small levels of carbon monoxide throughout the day. CO poisoning can frequently be observed in mines or a fire as well as burning carbon containing fuels in places with low ventilation and depending on exhaust smoke in garage or similar places. When carbon monoxide is inhaled, it is immediately and largely absorbed into blood and distributed throughout the body. The distribution of carbon monoxide in the body extensively reflects the binding of carbon monoxide to heme proteins (e.g., Hb, myoglobin). CO binds to hemoglobin existing in the red blood cells approximately 200 times faster than oxygen. Combination of carbon monoxide and hemoglobin results with a new product named as carboxyhemoglobin (COHb). Oxygen in our body is replaced by carbon monoxide as oxygen concentration decreases. Blood can not carry enough oxygen to the tissues. Heart, brain and other organs becomes inactive. The most common symptoms of carbon monoxide poisoning may resemble other types of poisonings such as headache, nausea, vomiting, dizziness, fatigue, and weakness. Neurological signs include confusion, disorientation, visual disturbance, syncope and seizures.