

**OP21 CARBON MONOXIDE
POISONING: THE STORY OF A
SOLE SURVIVOR, AND THE
TRAGEDY THAT TOOK THE LIFE
OF THREE**

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Introduction:

Carbon monoxide (CO) poisoning is one of the main classified silent killers that have taken many lives. Despite the use of catalytic gas converter in modern vehicles, a small leakage in exhaust can lead to massive toxicity.

Case descriptive:

We reported a case of four young adults who were exposed to CO poisoning in a car due to failure of vehicle exhaust system. Upon arrival at the scene, the retrieval team found four victims who were unconscious with all four car windows sealed. One of them was found dead on scene while the other three were rushed to the nearest hospital, Hospital Seberang Jaya. Out of the three, one of them succumbed during transfer while the remaining two who were identical twins were intubated and sent to different hospitals for hyperbaric oxygen treatment. Unfortunately, only one of them survived. This sole survivor was placed in a hyperbaric chamber while still intubated. She was discharged after 20 days of admission without any residual neurological deficit or complication.

Discussion:

CO is a hazardous gas released by incomplete combustion of fuel from exhaust system. In a confined space like a sedan car, fatal carboxyhemoglobin

concentrations can be reached in less than 10 minutes. The severity of CO poisoning is still being disputed, as all four patients show similar early neurological symptoms yet had varied outcomes. The treatment aim in CO poisoning is CO elimination from blood. Studies show, CO elimination by hyperbaric oxygen treatment (HBOT) is up to 4-fold faster compared to normobaric oxygen. One of HBOT's disadvantages is that it is not widely available in Malaysia. The nearest centre is Hospital Tuanku Mizan in Kuala Lumpur and Hospital Lumut in Perak.

Conclusion:

Even though they were all in the same vehicle, the outcome of victims in CO poisoning may differ. Each hospital in Malaysia may need to be equipped with a hyperbaric oxygen chamber to simplify and fasten the treatment process to improve management efficiency and patient outcomes. To avoid future scenarios like these, regular exhaust system checks up by authorities may be needed.

Keywords:

Carbon Monoxide, Poisoning, Hyperbaric Chamber