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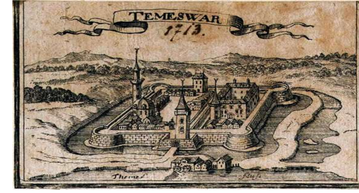
CASE REPORT: Accidentally intoxication with Freon- a report of two cases in young people



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Background

- Freon, a halogenated hydrocarbon gas, inodorous, colorless, and noninflammable – are use in commercial as refrigerant and also as propellant in nebulizers, insecticides and deodorants
- A few reported cases of Freon intoxication, and even fewer in adolescents
- As more and more industrial applications of this gas, we must become familiar with is mechanism of action and potential complications in order to provide our patients the best care possible

Cases reports

- We present the case of two young patients, aged 16 and 17 years, brought in the Emergency Department (ED) after accidentally inhalation of Freon drained from the cooling system of a refrigerator.
- The patients were in a small unventilated area for approximately 10 minutes.
- The physical examination revealed tachycardia, normal blood pressure values, and dyspneea for both.
- The 17 years patient present vomiting and coughing, lacrimation and eye irritation.
- PaO_2 was 94% for the 16 years patient and 91% for the second, that also have hypercapnia (pCO_2=55 mmHg) and acidosis (pH=7.33).
- ECGs shown no pathological modifications (figure 1a and b) and chest X-rays done were normal(figure 2 a and b).
- The patients were admitted to the Toxicology Section, where they recovered completely within 12 hours, but they remained hospitalized for observed delayed effects of this gas intoxication.

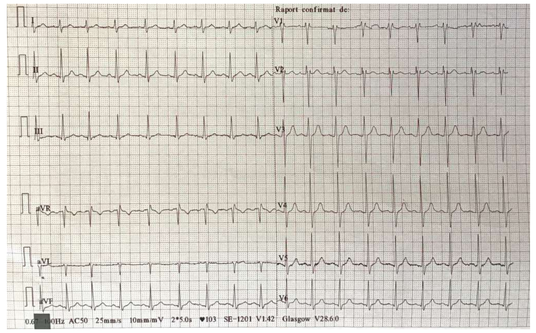

Figure 1a. ECG – 16 years patient

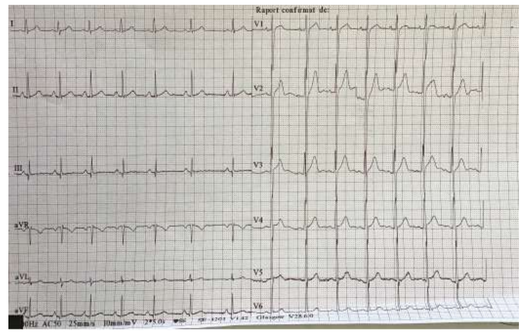

Figure 1b. ECG – 17 years patient

Figure 2a. Chest X-ray– 16 years patient

Figure 2b. Chest X-ray– 17 years patient

Discussion

The few case reports of accidentally intoxication due to Freon that have been published, have a very large variety of symptoms whose severity depends on the time of exposure, from headache to coma or sudden death.

In experimental studies on animal was demonstrad that a exposure to 20% volume concentration in air determined tremors and lacrimation, and over 80% can appers deep anastehesia and deaths as a results of cardiac arrhythmias.

Conclusions

In our cases, the fact that patients were young, without medical history and the time of exposure and time before admitted to ED was relatively low, determined the totally recover.

References:

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