

# Reazione avversa da sospetta inalazione di nichel tetracarbonile: un caso clinico

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## KEY WORDS

Nickel tetracarbonyl; carbon dioxide; respiratory distress

## SUMMARY

«*Adverse reaction following suspected inhalation of nickel tetracarbonyl: case report*». **Background:** *Nickel tetracarbonyl ( $\text{Ni}(\text{CO})_4$ ) is a highly toxic chemical that is produced as an intermediate compound in the Mond process of nickel refining. Occupational poisoning due to  $\text{Ni}(\text{CO})_4$  is not frequent, and up to now about 300 cases have been reported in the medical literature worldwide.* **Object:** *A clinical case is reported of an industrial worker who developed clinical symptoms of respiratory distress probably due to accidental exposure to  $\text{Ni}(\text{CO})_4$ .* **Methods:** *Clinical examination, chest X-ray data, history of exposure to nickel in the presence of carbon monoxide (CO) from a production plant that was located close to the reactor containing nickel, led to diagnosis of respiratory distress due occupational poisoning.* **Results:** *Patient history, clinical symptoms that were characteristic of  $\text{Ni}(\text{CO})_4$  poisoning: mild transient initial symptoms followed within 24 hours by more severe life-threatening events environmental data, history of exposure to nickel near a carbon monoxide (CO) production plant that was located close to the nickel containing reactor, indicated a putative causal relationship between diagnosis and exposure to nickel tetracarbonyl.* **Conclusions:** *The accident that without adequate respiratory therapy might have had fatal consequences, could have been avoided if the rules of technical and procedural prevention had been carefully observed.*