

## LINDANE-INDUCED HEPATOTOXICITY IN HUMAN?: REPORT OF A RARE CASE

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### ABSTRACT

#### Background

Lindane is an insecticide which is used in commercial insecticides and food containers.

#### Case presentation

Herein, we reported on a 62-year-old man with liver cirrhosis 12 years after continuous exposure to lindane gas. The diagnostic workup showed no other possible cause, and findings of liver scintigraphy and clinical manifestations were probably compatible with substance-induced cirrhosis.

#### Conclusion

Chronic exposure to lindane probably may cause hepatotoxicity and cirrhosis in human.

**Keywords:** Lindane, human, hepatotoxicity

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### INTRODUCTION

Lindane, the gamma isomer of hexachlorocyclohexane ( $\gamma$ -HCH) is a white solid substance used as an insecticide, scabicide, pediculicide, and ectoparasiticide. It is also used in commercial insecticide and food containers. It may evaporate into the air with colorless vapor and musty odor.(1)

Exposure to lindane is possible from ingesting contaminated drinking water, breathing contaminated air, or having contact with it.(1). Limited animal study is available on lindane toxicity by inhalation. The most acute effects in human have been due to accidental or intentional

ingestion of the substance, although inhalation toxicity occurred (especially among children) when it was used in vaporizers. Workers may be exposed to the product through dermal contact and through inhalation.(2)

To the best of our knowledge, no report has been published on lindane-induced hepatotoxicity in man. Herein, we reported on a patient with lindane-induced hepatotoxicity presented with liver cirrhosis.

### CASE PRESENTATION

A 62-year-old man presented with six months history of malaise, abdominal discomfort mostly in the right upper quadrant, jaundice and dyspnea. The patient was working in a food preserving factory for 12 years where he has been exposed to lindane gas. He left his job due to his illness since six months before. He mentioned two episodes of tonic-clonic seizure that was happened almost six years before. There was no other positive point in his past medical history including other medical

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