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Comparing Lead Intoxication by Oral and Inhalation Consumption, 200 Hospitalized Patients in an Academic Center, Tehran, Iran

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BACKGROUND AND OBJECTIVE: Opium use is a common cause of lead intoxication in our country Iran. This study was performed to determine the serum lead level and related factors (age, sex, oral or inhalational use and treatment results) in patients with lead intoxication in Loghman-Hakim Hospital in 2017.

METHODS: In this observational study that was performed as a descriptive comparative cross-sectional survey, 200 consecutive patients with lead intoxication in Loghman-Hakim Hospital in 2017 were enrolled and the serum lead level and related factors were determined in them.

RESULTS: Of 200 hospitalized patients ,194 cases were oral opium user (97%) and 6 case (3%) inhalational user. Totally 98% were male and 2% female. The results in this study revealed that mean lead level was 108.8 ± 33.8. Higher lead level was higher in older subjects (P=0.002). The gender, method of use, and therapeutic outcomes were not related to the serum lead level (P >0.05). Finally, 95.5% had clinical improvement with antidote therapy,3.5% signed out from the hospital and one case was deceased by encephalopathy.

CONCLUSIONS: Totally, according to the results, it may be concluded that lead level is high in patients with opium consumption and is related to older age and also the practical point is unconventionally, as people think or even some physicians believe, inhalation opium use can increase blood lead level as high as oral form. Although we need complementary studies in future on inhalational opium users for scientific conclusion.