

MINI ORAL 5 [ID#84]

Lead Poisoning in Battery Factory Workers

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BACKGROUND: Lead toxicity is an important common environmental hazard whose human impact can be devastating. Incidences of lead poisoning, seen across all age groups affect many, particularly those working in lead-based industries, many whom remain unaware of the adverse effects of chronic lead exposure.

CASE REPORT: In May 2019, our centre received three male, Bangladeshi patients, aged 20-45 years working in the same battery factory after all three tested positive for blood lead levels above normal range. Two patients with lead levels of 52.3 and 65.3 $\mu\text{g}/100\text{ml}$ s were asymptomatic and were discharged home with outpatient lead levels monitoring. The third patient who had underlying valvular heart disease, presented with epigastric pain, easy fatigability and giddiness. Initial blood lead level was 114 $\mu\text{g}/100\text{ml}$ s. Physical examination was remarkable only for mild ataxia, no other neurologic deficit was noted. Laboratory tests showed anemia, HB10, ALT116IU/L and AST65IU/L. This patient was hydrated and chelated with intramuscular Dimercaperol 100mg 4-hourly for three days. He was discharged well with outpatient follow-up, and blood lead levels in 1 month was 2.36 $\mu\text{mol}/\text{L}$.

All three cases were reported to public and occupational health agencies. Screening of all the factory workers and surrounding residents were carried out.

DISCUSSION: All patients were unaware of the effects of long-term lead exposure. There is a need for widespread education and awareness related to lead hazards and poisoning for the safety of workers in lead related industries. The most important factor in management of such cases is early detection and prevention of lead exposure. An accurate early diagnosis is important with a mandatory inquiry into the possible route of exposure.

CONCLUSION: It is important to increase public awareness regarding the risks of lead poisoning and early reporting of such cases to health agencies with continued monitoring from the department of occupational safety and health (DOSH).