Poster Abstracts

PO-01

PACKED RED BLOOD CELL TRANSFUSION IN THE TREATMENT OF ACUTE MALATHION POISONING – A CASE REPORT

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Objective: To present a case of acute Malathion poisoning with severe manifestations, later on developing intermediate syndrome, managed both conventionally and with Packed Red Blood Cell (PRBC) transfusion.

Case Summary: A 32-year-old male plantation worker was found 16 hours prior by co-workers, after drinking an unknown quantity of malathion, agitated, with vomiting, drooling of saliva, and complaining of abdominal pain. He was brought to a nearby hospital, where external decontamination and activated charcoal lavage were done. He was intubated due to depressed sensorium but after giving a total of 17 doses of Atropine 1 mg each intravenously (IV), he improved and afterwards self-extubated before being transferred to UP-PGH. On admission he presented with drowsiness, vomiting, salivation and pinpoint pupils, later with facial muscle fasciculation, consistent with organophosphate poisoning. Intravenous atropine was maintained along with introduction of Phenytoin and Diazepam. Due to its unavailability in the Philippines, oxime was not given. On the 12th hour of admission, he presented with labored breathing, desaturation and persistence of oral and bronchial secretions hence was intubated. Atropine administration and supportive management was continued until the 3rd day, where patient presented with increasing upper and lower proximal limb weakness and respiratory failure evidenced by difficulty weaning off mechanical ventilation. Cranial CT scan and Electroencephalogram were unremarkable. RBC Cholinesterase was at this time noted to be severely depressed at 0.04 ΔpH/hr. 2 units of packed red blood cells (PRBC) were transfused. 36 hours later he gradually regained muscle strength as a repeat RBC cholinesterase showed a significant increase at 0.16 ΔpH/hr. Despite intermittent recurrences of salivary drooling and facial twitching, the gradual improvement of muscle strength prompted extubation on the 8th day. He continued to improve thereafter until he was discharged on the 18th day of admission with no apparent neurologic sequelae and with an RBC Cholinesterase of 0.19 ΔpH/hr.

Discussion: The patient's clinical course is compatible with Intermediate Syndrome, characterized by the subacute onset of proximal limbs and respiratory muscle weakness after a partial resolution of cholinergic signs of malathion poisoning. It is suggested that exogenous erythrocyte cholinesterase substitution with PRBC transfusion be deemed as an additional therapeutic option in the management of severe organophosphate poisoning with intermediate syndrome.