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**Original article:**

**A Cross Sectional Study of estimation of Plasma Pseudo cholinesterase and its Correlation to mortality among organophosphorous poisoning patients**

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**Abstract:**

**Introduction:** Organophosphorus poisoning is the most common medico toxic emergency in India. Respiratory failure is the most common complication of OP compound leading to death. Early recognition and prompt ventilation may improve survival. The aim of the study was to correlate between the clinical score described by Peradenya Organophosphorus Poisoning (POP) scale, serum pseudocholinesterase level at presentation, ventilator requirement and the outcome.

**Methods**: Patients of OP poisoning attending Owaisi Hospital from Jan 2013 to Dec 2013 were studied. Sixty Four patients fulfilled the inclusion criteria. Fifty one of them required ventilator support. Twelve of them succumbed. None of the non ventilated patients died. Clinical scoring by Peradenya scoring and serum pseudocholinesterase level was measured in all patients.

**Results**: The severity of poisoning as measured by POP scale directly correlated with serum cholinesterase level (P<0.001). There were 50% patients in moderate poisoning score and only 5% patients in severe poisoning. A total of 18% of the patients died of which 85% belonged to moderate and severe group. POP scale directly correlated with death outcome (P<0.001). It was also seen that all the patients with pseudo cholinesterase level less than 50% of normal range were ventilated. Lower Pseudo cholinesterase level also directly correlated to death outcome (P<0.001).

 **Conclusion**: The POP scale and serum cholinesterase at presentation appeared useful to assess the severity of poisoning, particularly in terms of need for ventilator and prolonged duration of hospital stay.

**Keywords:** OPP