Predicting outcome in acute organophosphorus poisoning with poison severity score in patients attending a university hospital in Nepal

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Introduction: Organophosphate poisoning is one of the major public health threats in the agriculture based country where people have easy access to the pesticides and herbicides.

Objectives: The objective of this study is to predict morbidity and mortality due to organophosphate poisoning using Poison Severity Score, to identify the incidence and clinical profile of the patients, and to determine common toxic organophosphate compounds.

Materials & Methodology: The study is a cross-sectional where semi structured Proforma was used to collect data on those who were aged >16 years ingested with the organophosphate presented in Emergency Department of Tribhuvan University Teaching Hospital from September 2016 to October 2017.

Results: Study consisted 210 patients. Overall survival was 92.38%. The mean age of the total cases was 34.81 years. Poison Severity Score (PSS) was significantly different between survivor and dead organophosphate poisoning cases where 35.56% of grade 3 patients didn’t survived (p-value<0.005). 32.65% of those whose length of hospital days was ≤3 didn’t survive which was significantly different in mortality among organophosphate poison cases with p-value<.0001.

Conclusions: Poison severity score can recognize high-risk patients, which helps health care facility to provide prompt treatment to the poisoned patients. Higher the PSS, greater the probability of mortality. Therefore, poor countries like Nepal can quickly identify PSS with clinical features of poison cases in local health care facility and refer to tertiary care hospital as needed, which will help to increase the survivability rate.