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NEUROTOXICITY OF ORGANOPHOSPHATE PESTICIDES: SOME UNUSUAL MANIFESTATIONS

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Acute neurotoxicity of organophosphate (OP) pesticides varies from symptoms of cholinergic overactivity to coma. Some of these compounds also cause delayed neurotoxic effects which manifest as polyneuropathy.[1] This paper documents some hitherto unrecognized neurological deficits, namely, cranial nerve palsies and unilateral sensory deficits occurring after exposure to OP insecticides marketed in Sri Lanka:

1. Unilateral lateral rectus palsy causing diplopia in two patients (males, 23 and 25 years). One patient also had marked weakness of limbs due to polyneuropathy, and the other patient had numbness and impairment of sensations in the limbs on one side.
2. Restriction of all ocular movements in two patients (males, 25 and 38 years). One patient also had ptosis, facial weakness and palatal palsy bilaterally. Both patients had evidence of polyneuropathy in addition.

3. Nasal regurgitation due to palatal palsy, bilateral in one patient (male, 55 years) and unilateral in the other (male 16 years). There was no clinical or electrophysiological evidence of polyneuropathy

The underlying mechanism of these neurological phenomena is not clear. Yet, it is worth remembering these manifestations as possible neurotoxic effects of OP pesticides, especially in view of the high incidence of insecticide poisoning in our country.

Reference

1. Senanayake, N. (1981), *Proc. Sri Lanka Ass. Advmt. Sci.*, **37**, 5-6.