Obidoxime in acute organophosphate poisoning: 1 - clinical effectiveness.

OBJECTIVE: The effects of obidoxime in the treatment of organophosphate poisoning were assessed by comparing the clinical course with its effects on laboratory parameters relevant to poisoning. In this article we report clinical findings and activity of cholinesterase in plasma and acetylcholinesterase (AChE) in red blood cells. In a linked paper we describe changes in neuromuscular transmission and atropine concentrations in the same patient cohort. METHODS: We studied 34 atropinized patients with severe parathion, oxydemeton methyl, and dimethoate self-poisoning who were treated with obidoxime in a standard protocol. We measured the AChE activity in blood and related it to clinical features of organophosphate poisoning. RESULTS: Patients poisoned with parathion responded promptly to obidoxime (250 mg bolus followed by continuous infusion at 750 mg/day up to 1 week) with improvement of neuromuscular transmission and increased AChE activity. The effects were only transient in cases with the other poisons. Death (7/34) occurred late and was mostly due to complications rather than due to ongoing cholinergic crisis. CONCLUSIONS: Obidoxime appeared safe and reactivated AChE in parathion poisoning.