Acute endosulfan poisoning with cerebral edema and cardiac failure.

BACKGROUND: Organochlorine insecticides are highly toxic compounds that are responsible for a number of severe intoxications worldwide with several deaths. Despite their widespread use in agriculture during the 1940s to 1960s and the well-known signs and symptoms of intoxication, the clinical picture in case of poisoning varies. We report two cases of acute intentional endosulfan intoxication with cerebral edema and cardiac failure. CASE REPORTS: Both cases developed life-threatening signs like epileptic state, respiratory insufficiency and hemodynamic instability soon after ingestion. The survivor developed severe myocardial insufficiency and pulmonary edema documented by echocardiography and x-ray of the chest. The deceased patient developed severe cerebral edema and multiorgan failure ten days after ingestion of Thiodan 35. The peak serum concentration of endosulfan in the survivor was 0.12 mg/L approximately 23 hours after ingestion, whereas the peak blood concentration in the fatal case was 0.86 mg/L approximately 25 hours post-ingestion. Post-mortem endosulfan levels in different organs were determined. CONCLUSION: Endosulfan is a highly toxic organochlorine insecticide that produces well-known neurological symptoms of tonic-clonic convulsions, headache, dizziness and ataxia but also can cause gastrointestinal symptoms and metabolic disturbances. Life-threatening cerebral...
edema and hemodynamic instability may occur. Treatment is symptomatic and supportive.