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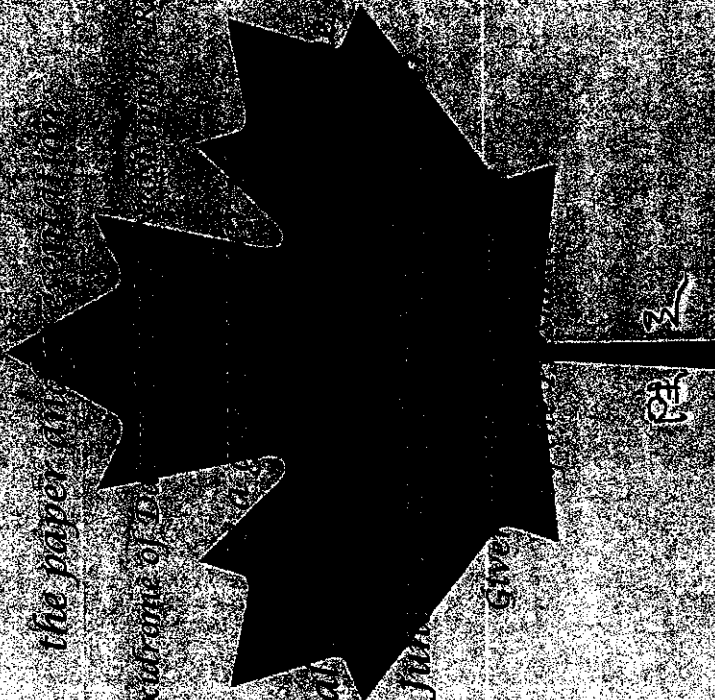
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ANTICHOLINERGIC TOXIDROME OF DATURA TOXICITY: NEOSTIGMINE REVERSES ITS TOXICITY

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Datura belongs to the family of solanaceae or "*Kecubung*" in Malaysia or "*Trompetbloem*" in Surinam. It is rich in alkaloids and terpenes and is often used for pulmonary conditions such as bronchial asthma. The seeds are the most toxic part of the plant as 100 seeds contain the equivalence of approximately 6 mg of atropine. The main active chemicals present in *datura* are the tropane alkaloids scopolamine, atropine, and hyoscamine. Scopolamine and atropine are anticholinergic deleriants. They block muscarinic receptors, which in turn excite dopaminergic neurons. They are readily absorbed, partially metabolized by the liver, and mostly eliminated in the urine, with a half-life of about four hours.

We describe a case of acute *datura* ingestion in a 48 year-old gentleman presented to our emergency department after he allegedly consumed 4 fruits of *datura*. One hour after ingestion, he developed generalized muscle weakness associated with altered sensorium, his GCS was 10/15. On examination, he was found to be restless, dilated pupils of 4 mm in diameter. He was hyperthermic (T=38°C), tachycardic (H/R=100 beats per minute), blood pressure of 130/80 mmHg, tachypnoeic (R/R=26), presence of neck stiffness, dried and coated tongue and presence of urinary retention.

In *datura* toxicity, life-threatening events require prompt supportive management. The use of neostigmine as acetylcholinesterase inhibitor in an anti-cholinergic intoxication is reported to effectively reverse the effect of anti-cholinergic toxidrome. The doses and frequency of neostigmine administration can be titrated according to the clinical progress and improvement. Our patient responded well to the regime given. Careful titration of the drug is required. Too high doses of neostigmine cause severe bradycardia, which may require intravenous atropine.

In conclusion, early detection of toxicity (toxidrome) and a good history taking remain the most important elements in the diagnosis of *datura* toxicity in the Emergency Department. Delay in recognizing toxicity of *datura* may lead to serious morbidity and mortality.