

Malpitte Madness

A REPORT OF TEN CASES

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SUMMARY

We report 10 cases of malpitte (*Datura*) psychosis in teenagers ranging from 14 to 15 years of age. Patients showed derangement of liver function tests and/or cholinesterase activity. Management is discussed with special reference to phenothiazines being contra-indicated. The psychosocial problems associated with the recent epidemic of malpitte abuse are discussed and the disturbed family backgrounds of our patients are given.

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The use of malpitte or 'mad seeds' (*Datura stramonium*) by schoolchildren has reached noticeable proportions in South Africa. The abuse of malpitte leads to the problem of an acute psychiatric emergency presenting to the medical practitioner or casualty department.

The distribution of the *Datura* species is worldwide. These plants have been recognised as poisons and hallucinogens since antiquity, having been used in religious and magic rites. Among the Chibchas of South America, the plant was given to wives and slaves to stupefy them prior to their being buried alive during the funerals of their masters.¹ Lewin² believes that *Datura stramonium* was the plant accidentally eaten by Mark Anthony's troops on their retreat from Partha in AD 38, producing in them stupor, insanity, and in some cases, death. The Algonquin Indians of California use the plant to help solve the problem of the adolescent search for identity, while the Jivaro tribes give *Datura* seeds to unmanageable children in the hope that the spirits of their ancestors may come to admonish them.³

The earliest specific mention of *Datura stramonium* was by the Arab physician Avicenna in the 11th century; he was aware of its intoxicating as well as medicinal potentials.⁴

In more recent times, there occurred a case of mass poisoning of British troops by *Datura stramonium* during the American Revolution.⁵ The soldiers gathered some 'James-Town weed' for a salad, which turned them into 'natural fools' for several days. It was reported that some sat 'stark naked in a corner, like monkeys grinning and making mows (faces) at them', while others 'would have wallow'd in their own excrements, if they had not been prevented'.

The Xhosa of South Africa sometimes bind the leaf around the head for the relief of headache, and this practice has been found on occasion to result in sweating, in addition to marked and persistent dilatation of one pupil. The Xhosa and Fingo both use the leaf to blister the skin over inflammations where there is no open sore.⁶

In South Africa there have been reports of scattered episodes of accidental poisoning, including the death of a 16-year-old schoolboy in King William's Town.⁶ Poisonings in military units, orphanages, schools, hostels, mine compounds for Black workers, and in circumstances where contaminated flour has been used in making home-made bread, have been reported.⁷

Datura stramonium contains, as the psychoactive compounds, hyoscyamine as the chief alkaloid, with scopolamine and atropine occurring in lesser concentrations. In South Africa, poisoning is more common by eating the seed, and less common by eating the leaf.

We report 7 cases of *Datura stramonium* poisoning treated at the Johannesburg General Hospital, in addition to 3 cases which presented to the Crisis Clinic, Johannesburg, over the past few months. We will discuss the psychosocial problems associated with the recent epidemic of malpitte abuse.

CASE REPORTS

All 7 patients treated at the Johannesburg General Hospital for malpitte intoxication were teenagers, their ages being 14 or 15 years. Their clinical presentations were similar in that they were all agitated, aggressive and disorientated. They presented with fatuous affect, and laughed inappropriately, as well as talking to themselves in a confused, illogical manner. Other clinical observations are shown in Table I. The clinical features lasted for as long as 36 hours in some patients.

Case 1

A 14-year-old girl, at the time of taking malpitte, was being cared for in a place of safety. She and a group of friends, all of whom were admitted to hospital, had taken the malpitte. She came from a family of 9 children, who had parents who gave them regular hidings, even up to the age of 14 years. The patient had a history of impulsive behaviour, of having run away from home several times, and had failed the previous year at school. Her general picture was one of an emotionally deprived child in an excessively large family. In her diagnosis, the possibility of psychopathic traits was mentioned.

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TABLE I. CLINICAL SIGNS OF MALPITTE POISONING

Case	Pulse rate beats/min	Fixed dilated pupils	Reflexes	Temp. °C	Hallucinations	Others
1	136	+	Normal	36,0	V + A	Dry mouth
2	108	+	—	36,5	A	—
3	110	+	Very brisk mild clonus	35,6	V + A	Dry mouth
4	104	+	Brisk			Incontinent
5	120	+	Brisk	37,3	A	Dry mouth
6	104	+	—	37,2	A	—
7	124	+	Brisk	36,7 37,1	A V + A	Incontinent, Dry mouth

V = visual; A = auditory; + = present.

Case 2

A 15-year-old boy was also being cared for at a place of safety, and took the malpitte with three friends. He and his sister had been orphaned as babies, and had spent their lives in the care of foster-parents. His school career was problematical, and after his stay at the place of safety, he was to be sent to an industrial school.

Case 3

This patient was a 14-year-old girl of good intelligence. She, however, experienced a very unhappy childhood because her parents fought incessantly. Her parents eventually separated when she was 11 years old, and she remained in the care of her father and his girlfriend. Her mother moved to Europe and there was very little postal communication between them, although the patient would have liked more. She had neurotic traits as a child, and abused various drugs, including dagga and LSD. She appeared to be a very disturbed girl, having twice taken overdoses and having required psychiatric treatment. She was diagnosed as having a hysterical personality and longer-term psychiatric treatment was refused by the patient and her father, both of whom had very poor insight.

Case 4

This patient was a 15-year-old boy, who had taken malpitte on his own and was being cared for in a place of safety. The patient, the second of 8 children, had been in an orphanage for 7 years because of domestic problems. He returned home to a poor environment for a short period, but as a result of an inspection visit by welfare officers, who found the family in need of care, 6 children were removed to a place of safety. Long-term psychiatric treatment was suggested.

Case 5

This patient was a 14-year-old intelligent boy, from a good school and well-to-do home, who, with a friend, took

malpitte 'for kicks'. It was the first time he had abused a drug and there appeared to be no important domestic or environmental problems.

Case 6

This patient was a 14-year-old boy, cared for at a place of safety. The parents had separated when he was young, and his mother was at that time living in Europe. The boy and siblings absconded from home on various occasions, and there was also a history of petty theft. Because of this and the domestic environment, the boys were placed under care.

Case 7

A 15-year-girl had been in an orphanage for many years because her parents did not support her. She played truant from the orphanage and was therefore placed in the care of Child Welfare who admitted her to a place of safety. She never adapted to the life there however, and her behaviour was so aggressive that she was sent to an industrial school for more vigilant safekeeping.

Cases 8, 9 and 10

These patients presented at the Crisis Clinic in Johannesburg. They were males whose ages ranged from 16 to 18 years. Their clinical pictures were similar, with visual, auditory and tactile hallucinations. They were confused and avoided tactile contact. They exhibited ataxia, fatuous affect, tachycardia, dry mouth, fixed dilated pupils and sensitivity to light.

Two patients were 16 years old and were friends. The effect of the malpitte wore off after a few hours and they became more lucid. At follow-up the next evening they were found to be from middle-class immigrant families who lived in isolated communities. They often played truant from school but had not abused drugs before. The mother of one boy was an alcoholic, but otherwise there appeared to be no serious pathology in either family. The two boys took the malpitte in the veld

TABLE II. LIVER FUNCTIONS IN CASES OF MALPITTE POISONING

Case	Alkaline phosphatase	LDH	SGOT	γ-globulins	Albumin	Admission	Cholinesterase		
							Day 1	Day 2	Day 3
1	N	↑	↑	↑	↓	57	81	95	
2	↑	↑	↑	↑	↓	—	81	97	100
3	N	N	N	↑	↓	66	81		
4	—	—	—	—	—	81	81		
5	↑	↑	↑	↓	N	—	100		
6	↑	↑	↑	—	—	—	97	100	100
7	N	N	N	↑	↓	97	100		

because they wanted 'a kick' and the malpitte were easily available.

The third case was an 18-year-old male who remained so psychotic during the period at Crisis Clinic that he was referred to hospital accompanied by a volunteer worker.

MANAGEMENT

Since fatalities have been reported from malpitte poisoning, and because of the possibility of liver damage (see Table II), we recommend that cases should be admitted to hospital for at least 18 hours' observation.

Treatment of malpitte poisoning is mainly symptomatic with sedation playing a key role. The patient may be sedated with clothiapine (Etomine), diazepam (Valium) or barbiturates. Phenothiazines, which are used for many hallucinatory states, should theoretically be avoided owing to their action and atropine-like side-effects,⁹ which may potentiate the action of *Datura*.

Miotic eyedrops, such as pilocarpine, may be used if photophobia from pupillary dilatation is a prominent complaint. Gastric lavage may be performed even if a period longer than the normal gastric emptying time has elapsed since ingestion. Some authors use physostigmine in addition to sedation, but we did not find this necessary.

A complication not seen in our series, which may produce a problem, is hyperpyrexia due to inhibition of sweating and urinary retention. Such hyperpyrexia can be treated by maintaining a low environmental temperature by using cold baths, sponges or fans, while urinary

retention is treated by catheterisation. Massive doses of malpitte can produce convulsions and respiratory depression which may require artificial ventilation.

After-care is important, and we found that some of our cases necessitated either long-term outpatient or inpatient treatment, depending on their underlying problems.

DISCUSSION

In South Africa today, the problem of drug abuse among teenagers is common. The background psychological factors include curiosity, boredom, rebellion against taboos and authority, escapism and peer group acceptance. In addition, malpitte are readily available at no cost, are fast-acting and pleasurable in effect, except for the frequent frightening 'come-down' which follows the acute phase. This may account for the fact that Phoenix House, the registered drug rehabilitation centre in Johannesburg, reports no simple cases of malpitte abuse, most subjects having abused LSD, dagga, sedatives or tranquillisers as well.

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