in a million pieces. The makeshift roofs of yellow tarpaulin gave the only flashes of colour in the bleak town.

## Posthurricane depression

I survived Hurricane Uma. So did all my friends. We each had our story to tell, tainted by that immense fear of the uncontrollable that had gripped us that night. Everyone suffered from a post-hurricane depression, which took about three weeks to lift. Some had worse stories to tell. On the night of the hurricane 32 boats were anchored in Port Vila bay. Only nine survived. Those on board had battled to save their yachts, only to end up strewn on the rocks at the height of the winds, then having to scramble for shelter, avoiding flying timber.

I was lucky. Just before the hurricane I was due to go off on an

interisland immunisation trip with the Save the Children Fund. After an exasperating few days waiting for the engine of the Savinfana motor launch to be mended the trip was cancelled and I flew down to Tanna. The Savinfana was one of the 23 boats to go down in Vila harbour. Neither it nor I would have survived out at sea.

Hurricane Uma stole 45 lives, caused millions of pounds worth of structural damage, and brought sickness and injury to the people and republic of Vanuatu.

#### London SW4 0AH

FRANCES EMRYS-ROBERTS, medical student

Correspondence to: 43 Wix's Lane, Clapham, London SW4 0AH.

# Poisoned by herbs

## ANNE SAVAGE, ANNE HUTCHINGS

"Poisoned by herbs." This starkly sinister phrase appeared regularly on the notes of a West Pondoland hospital. The conviction that herbal remedies are all poisonous is held by many European trained doctors, usually on the guilt by association basis. Thus, in a 1974 paper in the South African Medical Journal the blame is put fairly and squarely on the ingestion of herbs for everything from diarrhoea and vomiting, through anaemia, hepatic, and renal problems to volvulus. Only selected patients were questioned, no attempt was made to identify the substances used, and alternative diagnoses were not discussed. Attractive in theory but dangerously deceptive in practice, for those who have marked down their culprit tend to look no further, this complacent attitude is now being replaced by one of caution, and the recognition that local medicines may have been taken for the symptoms that led the patient to seek care and not caused them.

Nevertheless, the accusation must seem plausible for the numerous South African flora contain many plants with extremely toxic properties. In their monumental work Watts and Breyer-Brandwijk list over 250 Xhosa or Pondo names of medicinal plants and of these 27 families contain potentially toxic members.<sup>2</sup> Many, particularly Liliaceae, Solanaceae, and Euphorbaceae, grow profusely in the area and it seems likely that they are picked. One, Akokanthera venanata (Apocyan aceae) has a near relative known to be poisonous since Alexander's time as many of his soldiers died after grilling meat on oleander sticks. It has nine vernacular names and the majority incorporate "Umhlungu" or "Ubuhlungu," the Xhosa names for pain, which suggests its probable use.

One of us (AS) working in the hospital was intensely suspicious after the deaths of three toddlers who had received herbal enemas.2a These children, however, died from sloughing of the rectal wall and further scrutiny of the hospital records did not confirm the original supposition that plant material, or even such unsuitable substances as Dettol and Jeyes Fluid were responsible but rather the Higginson's syringes with which they were administered. In 1985 doubt fell on a Senecio after several well fed toddlers had been admitted with rapidly developing hepatomegaly leading to death after a few days. By the time an investigation could be mounted the epidemic was over and the only three postmortem liver biopsies obtained showed differing pathologies. Two further small surveys of the under 5s were undertaken and once again no increased mortality, morbidity, or even length of stay in hospital was noted in thoseroughly half of all child admissions—who had been given herbal medicines.

## More confused picture

In adults the picture was more confused. Unexpected deaths were not infrequent and deaths from renal or hepatic failure common, but so also were other factors; infections, malignancy, alcohol, haemosiderosis, and orthodox drugs. Oxalate crystalluria was

regularly recorded, but whether this resulted from a metabolic abnormality or the ingestion of large amounts of oxalate containing plants was not clear. Apart from brief episodes of hallucinations in children and young adults-Datura strammonium is used all over Africa for recreational purposesthere was no confirmed acute poisoning.3 This was in contrast to Western medicine where vomiting from aminophylline overdose was common and at least two iatrogenic deaths occurred. A toddler was given 0.125 mg of digoxin by the village doctor, and the same dose repeated on admission, and another toddler became progressively more sleepy and died on the third day after circumcision. No one had noticed the administration of Tilidine, a sedative, on a three times a day basis.

About the same time AH, while engaged in compiling a guide to the wild flowers of the Transkei, had become interested in the medicinal uses of the plants that she collected. Information was supplied by staff and students of the University of the Transkei, by villagers, and later by the English speaking daughter of two herbalists.



Isicakathi (Xhosa name—Iyezalamasi).

Twenty four specimens were identified with their Xhosa names, likely medicinal constituents, and physical properties. One popular prophylactic, Isicakathi (administered to protect the new born child from the supposed ill effects of its mother's womb), was made from one of several plants with similar root stocks of which two, Ranunculus multifidus and Senecio coronatus, are known to be potentially harmful. Ranunculus contains a vesicant glycoside, ranunculin, and may be the cause of the lower lip syndrome, superficial blistering of the lower lip, which is only mildly painful and responds to steroid creams, but this condition is never seen in babies or young children and the upper lip is spared, so it seems unlikely.

Senecio coronatus is another matter. Poisoning by pyrollizidine alkaloids is well established in South Africa, so much so that an act was passed in 1929 making it an offence to sell meal or flour contaminated with spinkaanbos (ragwort) and laying down rules for sieving and winnowing grain. This bread or famine poisoning is the epidemic form but isolated cases

undoubtedly occur, causing venoocclusive disease, which progresses rapidly to hepatic coma and death. Chronic poisoning results in hepatomegaly and cirrhosis and may well be one of the factors in the high incidence of hepatocellular carcinoma.5 There is a second time bomb toxicity in the form of a pretty little daisy (Callelepsis laureola), which grows more profusely and contributes to more deaths in the Kwa Zulu than in the Transkei where it seems to be confined to the coastal region. It is disturbing to reflect that its danger was first suggested by A T Bryant in 1909. It has been well researched by Dr Watson and colleagues in Durban and even attracted media attention,6 yet AH found it this year among plants grown by the local herbalists.

Although many of our patients picked their own, others, possibly the majority, obtained their supplies from the traditional practitioners and it was clearly important to make contact with them. Two successful meetings were held in the hospital grounds. On each occasion six to eight amagqihra (traditional healers) attended and many interested nurses.7

## Aloof attitude of doctors

The medical staff, sadly, maintained an aloof attitude of mild contempt. In addition AH had long interviews with three of the individual practitioners.8 Like other interested inquirers of the past we found them an intelligent and responsible group all of whom had experienced a compelling vocation and were bound by a strong, if unwritten, code. They were completely open about their methods of diagnosis and treatment and although their concept of illness was that of their culture, that it was caused by human malevolence or failure to placate the ancestral spirits, they professed to recognise the conditions such as tuberculosis and malignancy that were beyond their resources and referred such patients to hospital. This claim was confirmed by many of the nurses present. Some of the herbalists regretted that the hospital staff never referred patients to them, and in this they may well be right, for African psychiatry is a problem of great complexity and not well treated by foreigners.

'Thinking," said Goethe, "is more interesting than knowing, and less interesting than looking." Looking certainly led us to thinking, and for one of us (AS) a complete revision of previously



A group of amagaihra—traditional healers.

held beliefs. Undoubtedly, there is a problem with delayed toxicity from pyrollizidine alkaloids and the glycoside, actylosise, present in Impila (Callilepsis laureola), and there is a great need for public health education in this area.9 AH made some posters, and these were welcomed by the clinic sisters and distributed to the outreach clinics. But such initiatives would be more successful if supported by the traditional practitioners. What seems certain is that the amagqihra still form the primary health care system of the country and they have considerable knowledge of the plants and how to avoid acute poisoning. One of them was horrified when he heard that ranunculus had been used in Isicakathi-"Much too strong for a child"—and every encouragement should be given to foster their expertise. Otherwise, as the "tranny" culture takes over we may come, in truth, to write "poisoned by herbs."

We should like to thank Professor Peter Scheuer for examining the liver biopsies, and Mr Makaba and Matron Zote for organising and chairing the meetings with the amaggihra.

#### References

- Solleder G. Clinical observations on toxic effects of xhosa medicines. S Afr Med J 1974;48:2365-8. Watts JM, Breyer-Brandwijk MG. The medicinal and poisonous plants of southern and eastern Africa.
- Edinburgh: Livingstone, 1962.
- 2a Savage A. Do-it-yourself medicine. Br Med J 1982;285:560-1.
- 3 Hutchings A, Johnson C. Glimpses of a xhosa herbal. Veld and Flora 1986:59-61. Smith RL, Bababumi EA. Toxicology in the tropics. London: Taylor and Francis, 1980
- 5 Rose EF. Senecio species. Toxic plants used as food and medicine in the Transkei. S Afr Med 7
- 6 Anonymous. Parents killing children with "magic" plant. Sunday Tribune 1971 Aug 21. Gelfand M. Witch doctor. London: Harvill Press, 19
- Broster JA. Amagaitha. Cape Town: Via Africa Ltd, 1981.

  Watson AR, Coovadia HM. The clinical syndrome of impila poisoning in children. S Afr Med J 1979:55:290-2.

### London NW11 6TU

ANNE SAVAGE, MB, DCH, general practitioner (lately of St Elizabeth's Hospital, Lusikisiki, Transkei)

## Department of Biochemistry, University of Zululand

ANNE HUTCHINGS, research assistant, Zulu folk medicine research

Correspondence to: Dr Anne Savage, 12 Turner Close, London NW11 6TU.