Traditional herbal eye medicine in Kenya

V. Klauss & H.S. Adala

A study was conducted in Kenya on 16 traditional healers in order to obtain information about their knowledge of eye conditions, the herbal medicines they used, and their indications for referral to ophthalmologists. Evidence remains scanty that traditional treatments are beneficial, and in some instances harmful effects have been reported. Nevertheless there is a solid case, based on economic and other grounds, for integrating traditional healers into the modern health care system.

Traditional medicine remains the most widespread form of health care in Africa. Research on the subject is difficult because the transfer of knowledge from one healer to another is exclusively verbal.

The University of Nairobi's Department of Ophthalmology has undertaken a study with a view to answering the following questions relating to traditional herbal eye medicine in Kenya:

• Which ocular diseases can be distinguished by traditional healers?
• What terms are used for eye diseases in the local languages?
• Which eye diseases are treated by healers?
• Which patients are referred?
• Which methods of treatment are used?
• Are the treatments useful, harmful or without any effect?
• What education and training have healers received?

• How many patients are treated?
• What fees are charged?
• Do healers cooperate with one another?

Contacts were established with 16 healers through patients who reported having been treated by them and through physicians. Because traditional knowledge about medicinal plants is family property, passed down from generation to generation, visits were carefully prepared in the hope that the healers would be confident that their secrets would not be divulged and used commercially. Even so, two of the healers refused to reveal any details of the plants and medicines they used. Some of the healers gave their cooperation because they hoped that it would open the door to a larger market for their products. An interview protocol with 40 questions was devised. Medicinal plants were identified with the help of the Nairobi Museum in Kenya.

Traditional healers

In each of the native languages of Kenya there is a word meaning "herbalist" and another meaning "psychotherapist" or "witch doctor": in Swahili these words are mganga and mchawi respectively. The ages of the 16 heal-
ers, only two of whom were women, ranged from 30 to over 80 years. They had been working as traditional doctors for between five and 56 years. The Akamba, Chonyi, Digo, Kikuyu, Luo and Masasi ethnic groups were represented.

Two of the healers were the first in their families, while three, six, four and one belonged to second, third, fourth and fifth generations respectively of healers. Nine were illiterate, six had undergone primary education for up to seven years, and one had additionally received secondary education. One of the healers was employed, the others worked as part-time farmers.

**Diseases treated**

One of the healers treated only eye diseases, whereas the others concerned themselves with a wide range of other conditions as well. Seven provided only herbal treatment, the others sometimes also using magic. Eight of the healers had a special consulting room, the remainder using a living room or an outdoor site for consultations. The number of eye patients treated per day ranged from one to fifteen.

**Methods of examination**

Seven of the healers considered the histories of patients to be more important than examinations; eight said that histories and examinations were equally important. All the healers examined the eyes before treatment. Two checked visual acuity by asking patients to read from a newspaper or to count fingers. A torch was never used. Two healers invered the upper lid as a part of their examination procedure, and one asked patients to look into daylight in order to test for photophobia. One enquired about problems during sleep and when the eyelids were closed.

**Terminology**

Specific terms exist in the local languages for cataract, chalazion (a small swelling in the eyelid due to chronic inflammation), conjunctivitis and, in some cases, for corneal scar,

*It is clearly easier to train traditional healers than entire populations: the comparatively few traditional healers can then contribute to the education of the many.*

but they do not always correspond to the terminology of Western medicine because they describe symptoms and signs, not pathogenesis.

**Treatment**

Fifty-eight species of plant were identified as being employed in ocular treatment; one healer used 43 of them, but far fewer were used by the others. The table on page 140 shows the 19 most commonly used plants.

One healer did not treat chalazion but instead awaited spontaneous rupture. Three healers said they referred patients with chalazion to health stations.

Entropion and trichiasis were only known to and treated by healers in areas where trachoma was endemic. The epilation of lashes was frequently performed by healers or patients.

The differentiation of the various forms of conjunctivitis was too complicated for most healers. Four healers described herbal treatment for allergic conjunctivitis in children.

The differential diagnosis of corneal leukemia and cataract was problematic. Five healers had
### Herbal treatment of diseases

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No treatment for corneal diseases; one referred patients with keratitis or corneal ulcers to a health station, and one believed that all corneal conditions were caused by diseases of the liver.

Most healers retained patients with cataract until the condition matured and then referred them to hospital. One healer considered that he could treat all stages of cataract and that it was never necessary to perform surgery. Only one was unaware that surgery could be performed.

Eye injuries other than abrasions and corneal foreign bodies were always referred to hospital.

One healer claimed to specialize in the treatment of proptosis. Tumours of the lid and conjunctiva were recognized by four healers.

All the children with advanced retinoblastoma who were seen in the Kenyatta National Hospital had previously been treated by healers. However, only three of the healers in the study were prepared to treat this...
disease. One healer claimed that the condition was caused by a disease of the liver and blood which he could treat.

Although night blindness is common in children as a result of vitamin A deficiency, none of the healers had observed the condition.

Seven healers sent patients with supposed refractive errors to ophthalmologists or opticians. One healer said that refractive errors were attributable to a lack of important substances in the body, and that substitution would make the use of glasses unnecessary. Some healers differentiated between near and far vision. One healer advised patients to eat cabbage and carrots; another recommended a repeated steam bath for the eyes.

Three healers described a condition involving severe ocular pain but no loss of vision or redness of the eye, which they treated with Oxygonum sinatum and Abrus precatorius.

**Application of medicinal plants**

Parts of plants, powder produced from dried plants, and extracts from parts of plants were applied locally to the lids, into the conjunctival sac, or orally.

In cases of trachoma, one healer used the rough leaves of Cordia sinensis to rub the tarsal conjunctiva until it bled. Another chewed the leaves of Bosinia coreacea, and the juice obtained, including saliva, was applied into the conjunctival sac. The sap of some plants was instilled directly, or after heating, into the conjunctival sac, a procedure causing irritation, pain and possibly chemical burns. The leaves of Glagellaria guineensis were heated by one healer, mashed, and then rubbed into small wounds that he cut in the skin of the upper lids. Panicum densatum was chewed by one healer and then applied with salt to lid wounds.

In cases of cataract, refractive errors and ocular pain, a healer asked patients to take the seeds of Abrus precatorius orally, and applied sap from the plant’s root into the conjunctival sac three times daily.

*There is evidence that healers like to use substances that cause irritation and pain because they believe that only such medicines can be powerful.*

One healer chewed tobacco and put a mixture of saliva and tobacco into the conjunctival sac for the treatment of conjunctivitis.

Very precise instructions were given for the use of plants, concoctions and saps. The commonest applications were made into the eyes as eye drops or were taken orally as concoctions; these preparations were often made by the healers or their assistants, and were always produced separately for each patient.

The water for concoctions was taken from taps, wells and, in one case, from a river; in the latter instance it was boiled before use. Not all healers were aware that the concentration of substances in their medicines could vary. One claimed that he tried medicines on himself in order to arrive at appropriate dosages; another said that during his first two years of activity as a healer he treated all patients gratis and experimented with different concentrations and dosages.

Referral to hospital for cataract, eye injuries, chalazion and lid diseases, and refractive errors was done by 13, 13, six and six healers respectively; only one healer never referred patients.

Fourteen of the healers followed up their patients and two made home visits. Success rates were claimed to range from 50% to 100%.
Traditional Medicine

The cost of treatment normally ranged from US$ 0.50 to $200, although a father said he was asked to pay $600 for the treatment of retinoblastoma in his child.

During the study various other forms of treatment were observed, including surgery, spiritual healing and the application of non-herbal substances. Couching for cataract was not seen or reported.

**Need for research**

The World Health Organization has indicated that research into the following areas of traditional eye medicine should be given special attention:

- the practitioners themselves;
- systems, procedures, techniques, technology and fundamental principles;
- medicinal plants;
- therapeutic programmes;
- drugs and diseases;
- promotive, educational and preventive measures;
- metaphysics, parapsychology, hypnosis, meditation and religious incantations;
- manpower development and the impact and utilization of health services.

Although 58 plant species used for eye treatment were identified in the present study, it should be noted that few analyses of African

Some patients who had been treated by traditional healers said that they had been cured of chronic eye conditions, which were, however, non-specific: pain in the eyes, burning sensations, recurrent swelling of the lids, and so forth. All of these patients reported that they had been treated previously in government hospitals without success.

In contrast to the few reports of successful treatment of eye conditions by traditional healers, there is evidence that healers like to use substances that cause irritation and pain because they believe that only such medicines can be powerful (1, 2). There are reports of patients who presented with corneal ulcerations (R. Medders, A.V. Oostervijk, personal communications, 1981), and of acid burns of the cornea (3) after treatment by herbalists. Nevertheless, it should not be concluded that traditional medicine is always ineffective or damaging; there is no doubt that it has positive effects in psychosomatic disease (4).

There is a lack of research on the effectiveness of plants used in the treatment of eye diseases. Such research can only be conducted in national or university institutions that bring together all the disciplines connected with traditional medicine.

Traditional healers should be integrated into the modern health system for economic and other reasons:

- most developing countries cannot afford a curative health care system covering their entire populations, and traditional medicine can serve as a first-contact system;
- traditional medicine is superior in the treatment of psychic and psychosomatic disease because of the knowledge that healers possess of the social and ethnic backgrounds of their patients;
- the possibility exists of finding effective substances used in traditional medicine which are unknown to modern medicine;
- traditional healers conserve a part of African culture.

In the field of eye care the integration of traditional medicine into modern medicine would require healers to be made aware that:

- blindness in old age is often curable, and that cataract patients should be referred for operation;
- poor eyesight may be caused by glaucoma, which leads to blindness and requires hospital treatment;
- eye diseases in children should be treated with antibiotics and referred to hospital;
- patients with serious eye injuries should be referred for treatment.

It is clearly easier to train traditional healers than entire populations: the comparatively few traditional healers can then contribute to the education of the many. With a view to integration it is necessary to:

- define the profile of traditional healers and thereby differentiate them from quacks and businessmen who claim to be knowledgeable about traditional medicine;
- control the work of herbalists;
- issue licences to practise;
- support research on medicinal plants and the substances they contain, and on their use.

Traditional healers can undoubtedly play a vital role in the provision of eye care at community level in rural Africa.

References