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Contributors

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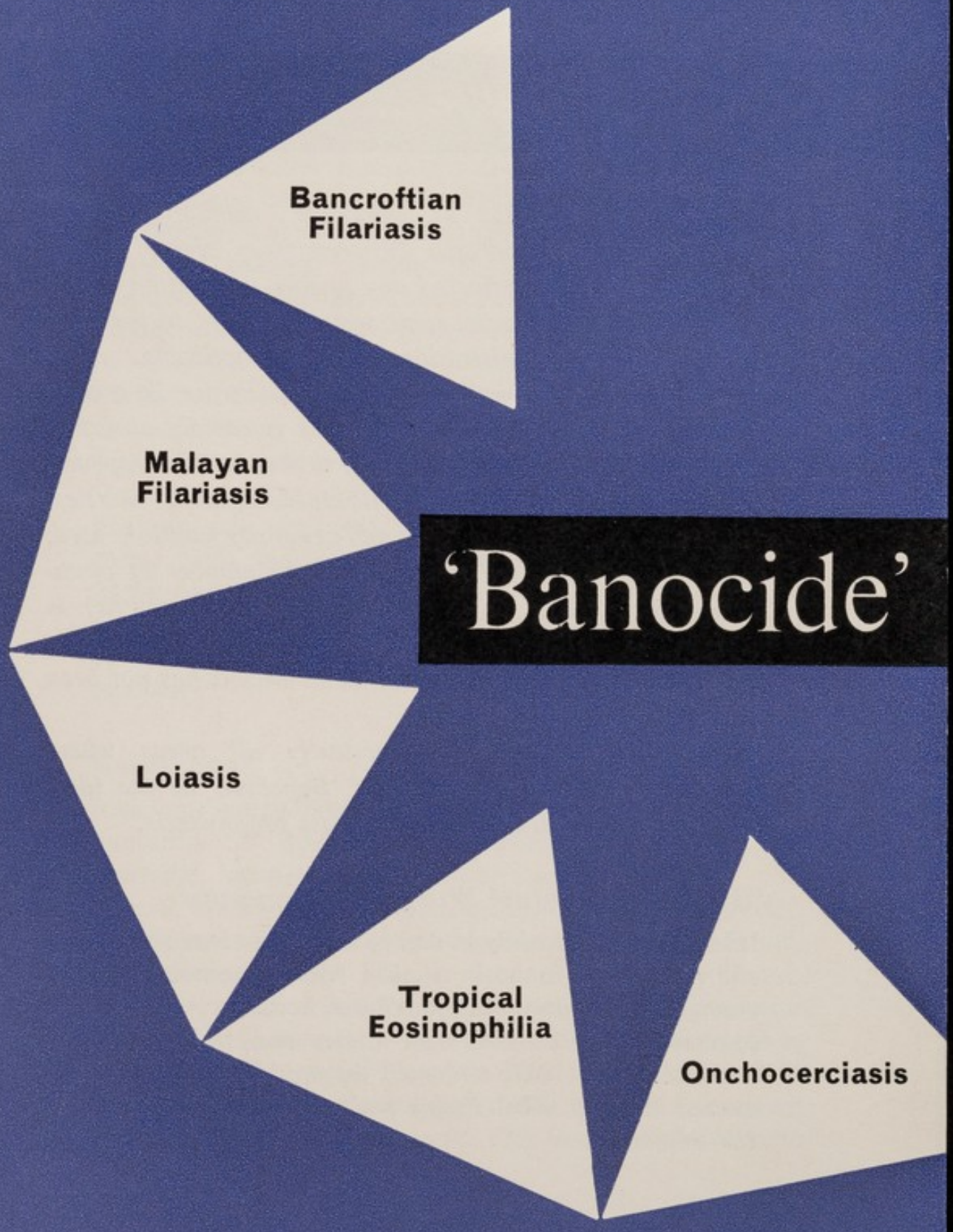

'Banocide'

'Banocide' in Filariasis

TRADE MARK

—the modern approach to an age-old problem

Until the introduction of 'Banocide', chemotherapeutic measures against filariasis suffered from several shortcomings. No drugs effected any lasting diminution in the numbers of microfilariæ, some were too toxic to the host and parenteral administration only was practicable.

'Banocide' brand Diethylcarbamazine Citrate is a synthetic, non-metallic compound, which is rapidly absorbed when taken by mouth. In addition to its chemotherapeutic action 'Banocide' has mild diuretic and analgesic properties.

'Banocide' is particularly safe and generally well tolerated.

A rapid and sustained reduction in the number of circulating microfilariæ (often lasting up to 15 months) is usually obtained within two to four days of the first dose.

The action of 'Banocide' on the adult worms has not been fully determined.

Extensive experience in practically all areas where filariasis occurs, has established 'Banocide' as the ideal drug for individual treatment or mass prophylaxis.

'Banocide' against *Wuchereria bancrofti*

Infection occurs mainly in damp, low-lying areas near coasts and rivers. It is found in tropical Africa, the north African coast, India, Ceylon, Malaya, China, northern Australia, the south-west Pacific, the West Indies and northern South America. Stoll (1947) estimated the world incidence of this disease and the allied *Brugia malayi* infection to be about 189 million.

DOSAGE OF 'BANOCIDE'

The usual dosage is 300 mg. daily (5 mg. per Kg.), preferably divided into three doses of 2 tablets each, given orally after meals. Treatment may continue for two to four weeks.

For mass prophylaxis in endemic areas, a single dose of 300 mg. taken regularly at monthly intervals, has proved successful. In some areas 50 mg. monthly has been found adequate. Mass control should be continued for at least a year. Various modifications are possible, depending on locality and type of population. Laurie (1950) found that East Africans tolerated considerably larger doses than those generally advised. Single doses of 15 mg. per Kg. were well tolerated by practically all patients, and could be repeated within a short space of time. Nelson and Cruikshank (1956) in Fiji obtained a 60 to 70 per cent reduction in microfilariæ, following a dose of 50 mg. on one day each month for 12 months.

In the Gambia, McGregor and Gilles (1956) observed that the recovery rate was higher 45 months after treatment than it was 10 months after treatment. This prolonged residual effect suggests the possibility of a sterilising action on the reproductive organs of the adult worms.

'Banocide' against *Brugia (Wuchereria) malayi*

Malayan filariasis has a more restricted distribution than bancroftian filariasis, although in some areas the two diseases may overlap. It occurs chiefly in Malaya, southern India, Indonesia, New Guinea and Borneo. The life history of the parasite, and the symptoms of infection, resemble those of bancroftian filariasis.

A dosage schedule similar to that used for bancroftian filariasis is recommended. Febrile reactions are often severe during the first few days and therefore one-third of the normal daily dose – i.e., 100 mg. – should be given after a meal on the first day, followed by two such doses on the second day.

The full daily dosage (300 mg. in three divided doses) is given thereafter for 30 days. Reactions after the first few days are usually minor in character.

'Banocide' in Loiasis

Loiasis is irregularly distributed in and near equatorial rain forests in Central and West Africa. It is endemic in the Cameroons, the Congo and parts of eastern Nigeria. Stoll estimated the overall incidence of infection to be about 13 million. The therapeutic dosage of 'Banocide' is the same as for *Wuchereria bancrofti.*

Duke (1963) investigated the use of 'Banocide' as a prophylactic in loiasis. He concluded that a dose of 5 mg. per Kg. daily for three consecutive days each month (200 mg. for an average adult) is likely to provide complete protection.

'Banocide' in Onchocerciasis

Infection occurs in Central America (especially Guatemala, southern Mexico and north-west Venezuela), and in tropical Africa. The populations of highly fertile agricultural areas often suffer severely. Ash and Spitz (1945) considered that optimal conditions for infection occurred in West Africa at elevations below 1500 ft., and in Guatemala and Mexico at 2000 to 4000 ft. Stoll estimated the total incidence of infection to be about 20 million.

Preliminary dosing at a reduced level should be undertaken to determine the degree of allergic reactions and to minimise their effects. *In cases without ocular involvement*, an initial dose of 100 mg. 'Banocide' is given, followed by 200 mg. on the second day. *Where ocular symptoms are present*, a considerably lower preliminary dosage is advised, i.e., 12 to 25 mg. on the first day, and two such doses on the second. In both instances, this test period may be followed by a 10-day course at the rate of 300 mg. daily, divided into three equal doses after meals, either with or without prior enucleation of nodules close to the orbit.

Hawking (1958) advocates repetition of treatment every six months as a prophylactic measure. Other workers, e.g., Crosnier (1956) and Woodruff (1958) also suggested the regular use of diethylcarbamazine as a suppressive agent.

'Banocide' in Tropical (Pulmonary) Eosinophilia

Many workers now regard tropical eosinophilia as a clinical entity caused by filarial infection. This condition is more widespread than was hitherto supposed ; it occurs in India, Pakistan, Malaya, Ceylon, the West Indies, Southern Rhodesia and West and Central Africa.

Failure to treat tropical eosinophilia may mean a continuance of symptoms – with relapses – for some years.

Diethylcarbamazine has been successfully used in varying dosages by many workers. Danaraj (1958) treated 110 patients. Three dosage schedules, i.e., 4 mg. per Kg. three times daily for four days, and 6 or 10 mg. per Kg. three times a day for five days, were employed. A complete cure was obtained in all cases. Nath and Pandeya (1960) reported a cure rate of 91 per cent in 44 cases, following a daily dose of 8 mg. per Kg. ; 81 per cent of cases were cured in two weeks. The authors refer to " the complete absence of dangerous toxic reactions ".

Reactions

Reactions due to 'Banocide' itself are transient and are not an indication for interrupting treatment ; they may include headache, lassitude, malaise, nausea and vomiting.

Filarial worms which are destroyed as a result of treatment with 'Banocide' will release antigenic substances. Such substances may produce allergic reactions, sometimes characterised by fever and œdema. Reactions of this kind occur mainly during treatment of infections due to *Onchocerca volvulus*, *Brugia malayi* and *Loa loa* ; they should not be attributed to any toxic action of the drug itself. Concurrent antihistamine therapy during the first few days of treatment

will minimise such reactions. 'Actidil' (triprolidine hydrochloride) is recommended as one of the safest antihistamines available. Corticosteroids may also be given to reduce allergic effects.

PACKING

'Banocide' is issued as 50 mg. tablets (scored for division) in bottles of 100 and 1000 and tins of 5000.

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