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Contributors

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'ALCOPAR'

in

Hookworm, Roundworm and Trichostrongylus infections

'ALCOPAR'

(bephenium hydroxynaphthoate)
is outstandingly active against hookworm, roundworm and trichostrongylus infections.
Clinicians in many countries continue to commend the ease of administration, high clearance rates and absence of toxicity of 'Alcopar', whether it is employed for single or mixed infections of intestinal worms.

Description

'Alcopar' contains 5 gm. bephenium hydroxynaphthoate (benzyldimethylphenoxyethylammonium 3-hydroxy-2-naphthoate) equivalent to 2·5 gm. bephenium base, in each sachet.

Advantages of treatment with 'ALCOPAR'

A single 5 gm. dose usually suffices

Patients of all ages can be treated

No hospitalisation

No fasting, purging or other

supportive measures

'Alcopar' is particularly suitable for routine treatment in clinics, schools, etc., and for mass campaigns in entire communities.

Indications

'Alcopar' is indicated in either single or mixed infections of hookworm, roundworm and *Trichostrongylus* spp. Some workers have observed that 'Alcopar' has a significant action against whipworm infection.

Dosage

Adults and children over 2 years should be given the contents of one sachet, in water. This should be taken on an empty stomach, at least one hour before food, thereby ensuring maximum contact between 'Alcopar' and the parasite. Hospitalised patients with persistent diarrhœa may need 3 doses in one day between meals. In such patients the fluid balance must always be maintained.

Children under 2 years or under 10 kgm. (20 lb. approx.) in weight, should receive half the contents of a sachet. This may be divided into two equal parts which are given either in the morning and evening of the same day, or on two successive days. To overcome any possibility of nausea due to the somewhat bitter taste of the drug, children may be given 'Alcopar' in a sweet liquid, such as a solution of sugar.

Treatment should be withheld from patients of any age who are suffering from severe vomiting or dehydration, until their fluid balance has been restored.

Residual eggs may continue to be excreted for some days after elimination of the adult worms. Therefore, when assessing the effects of 'Alcopar', egg-counts should be deferred until 2 or 3 weeks after treatment.

Side-effects

Side-effects, other than possible nausea due to the somewhat bitter taste of the drug, are unknown.

Ancylostomiasis (Hookworm infection)

The first large-scale trials of 'Alcopar' were undertaken in hospitals and on a rubber estate in Ceylon by Goodwin, Jayewardene and Standen (1958, 1959). Of 45 hospital patients who were given single doses of 'Alcopar', infection was substantially reduced in 41 cases.

The authors comment: "Bephenium hydroxynaphthoate was particularly suitable for the treatment of patients with advanced anæmia,

diarrhœa and heavy hookworm infections, because of its low toxicity and because no purge was necessary."

These results have since been confirmed by numerous workers in other areas where hookworm is endemic.

Van Oye (1961) stresses the general excellence of 'Alcopar' and in particular the simplicity of treatment. "This product combines an undeniable efficacy with certain qualities which render it entirely suitable for mass treatment. It is easy to administer, the patient requires no preparation, and, above all, does not provoke toxic effects . . . the eradication of ancylostomiasis [in the Congo and Ruanda-Urundi] can reasonably be foreseen within the near future". 'Alcopar' supersedes older treatments like tetrachloroethylene because of its freedom from toxic effects.

In a comparative trial of 'Alcopar' and tetrachloroethylene in West Pakistan, 'Alcopar' proved much more efficacious and markedly safer (Ahmad and Rasool, 1959). Single 5 gm. doses of 'Alcopar' were given to 78 patients; as a control group, 72 persons, i.e., every alternate patient found positive on stool examination, were treated with tetrachloroethylene. Ages in both groups ranged from 4 to 60 years. Following the administration of 'Alcopar', 82·4 per cent of patients were cleared of hookworm eggs, this proportion rising to 93 per cent after a second dose had been given to the remaining positives. *The corresponding figures for tetrachloroethylene were* 18 *per cent and* 20 *per cent*. Only two of the 78 patients treated with 'Alcopar' exhibited side-effects, and these were trivial. Of the 72 patients receiving tetrachloroethylene, side-effects occurred in 40 of them.

Clearance rates exceeding 90 per cent are frequently reported. For example, Nagaty and Rifaat (1959), who treated 239 Egyptian patients, obtained complete clearance of eggs in 223 cases and within 10 days. The drug was well tolerated by all patients, including six anæmic persons with hæmoglobin levels below 50 per cent, and four expectant mothers.

'ALCOPAR' in Hookworm Anaemia

Constant draining of blood by hookworms frequently causes iron deficiency anæmia. This can be dangerous.

Tasker (1961) shows that even a light infection of about 100 hookworms may cause a daily blood loss of about 8 ml. per person. Foy and Kondi (1960) found that patients entering hospital with heavy hookworm loads were losing 150 ml. or more of blood daily.

Hookworm expulsion – with 'Alcopar' – halts intestinal blood losses. Treatment with oral iron will then enable normal hæmoglobin levels to be regained.

Mixed Worm Infections

Up to 50 *per cent of hookworm patients may harbour concurrent roundworm infection.*

Many clinical workers have reported simultaneous clearance of both infections. In South Carolina, Young *et al.* (1960) obtained an egg reduction of 99 per cent. ~~'Alcopar' proved equally effective against hookworm.~~

In the Middle and Far East, trichostrongyliasis often occurs in association with hookworm.

In Korea, Shim Suk Hahn *et al.* (1960) treated 203 patients with mixed worm infections, including 75 persons harbouring *T. orientalis*. When examined one to two weeks after treatment, 58 of these 75 patients were completely negative for trichostrongylus eggs. An 82 per cent clearance was obtained in 79 cases of *Ascaris lumbricoides*, a 98 per cent clearance in 153 persons infected with *Ancylostoma duodenale*, and a 41 per cent clearance in 109 patients with *Trichuris trichiura*. The authors consider 'Alcopar' to be "an ideal anthelmintic for infection with multiple intestinal helminths. Side-effects are mild and renal and liver functions are unimpaired."

In areas of considerable worm incidence, reinfection is a constant threat. Routine administration of 'Alcopar' is the decisive answer.

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