Miscellaneum : Experiences with Nixopan, a new Vermifugum

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Miscellaneum.

Experiences with Nixopan, a new Vermifugum.

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The relative inefficiency of most of the anthelmintics and the side effects of others result in constant production and trial of new drugs or combinations of drugs with vermifugal properties.

One of the latter is Nixopan (Hommel) which consists of 16 g Poly-(N-methylene-diethylenediamine) and 4 g dithiazanine per 100 g substance. It is supplied as micro-dragées and has as adult dose 3 times a day two of the small cups (content about 0.5 g) supplied with the drug. Treatment is to be given for 5 consecutive days.

Poly-(N-methylene-diethylenediamine) showed in vitro a good killing effect on the usual human and animal intestinal worms. DRUDGE and coworkers (1959) also observed good results in animal experiments and noted no side effects. Administration by means of a gastric tube in horses was more effective than if the drug was given orally.

Post mortem examination on rats showed that the drug if given enteric coated had no influence on the intestinal mucosa. The intestinal flora did not show significant alterations although the effect of the drug could be demonstrated.

The second ingredient, dithiazanine iodide, is an active anthelmintic drug against all kinds of worms possible with exception of ankylostoma. In the usual dosis of 3 times a day 200 mg, however, it showed side effects as nausea and vomiting in 33% and diarrhoea in 4% of the cases treated (VINKE & VAN DER SAR, 1959). This drug has furthermore been strongly suspected to be the cause of death in 6 persons (Medical Letter 1962) and is therefore advised to be used cautiously only in cases of strongyloides and trichures. As in Nixopan the amount of dithiazanine iodide has been reduced to a daily amount of 120 mg, which is one fifth of the usual dosis, it is hoped that toxic side effects will not be encountered.

Own experiences.

Our patients had their stools examined according to the following routine procedure. After the taking of a saline laxative,

a) direct smears of three portions of faeces were searched for amoeba and ova;

b) concentration of ova from three portions of the stool, using Teleman's method;

c) concentration of cysts from three portions of faeces, using Bayer's method. Sometimes worm ova were also found in the cyst concentration.

Estimates of the heaviness of the intestinal infections have not been carried out.

When the faeces examination of our patients as described above done on the sixth day was negative, it was considered that no parasite had survived. No special diet nor extra hygienic measures were prescribed.

The drug was administered to 112 persons suffering from 133 worm infections. The results of treatment may be seen in Table I. In two of 36 patients

TABLE I.

worms	total	cure	failure
Ascaris	3	3	0
Ankylostoma	7	2	5
Strongyloides	13	12	1
Trichures	104	79	25
Oxyures	6	6	0
G. lamblia	17	0	17
E. histolytica	23	0	23

which could be reexamined after three months, trichures could again be demonstrated. It is not clear if this was due to relapse or reinfection.

It is obvious that Nixopan has no influence on the protozoal parasites. Its effect on ankylostoma, the most difficult worm to be expelled, is not great.

The best results were obtained in strongyloides infections. As this worm is highly sensitive to dithiazanine, one wonders if the results have not been obtained by this part of the drug mainly. However, the results obtained with Nixopan in trichures infections (with 24% of failures) are about the same in our hands as with 600 mg dithiazanine, which means that the Poly-(N-methylene-diethylenediamine) must be responsible for a great deal of the cures.

Ascaris and oxyures are rather scantily present in our adult population, and it is therefore difficult to estimate the value of the new drug on this kind of parasites. However, from the patients treated, it seems to give hopeful results.

Side effects were noted in only eight patients of which six complained of nausea and two vomited. These complaints subsided the day after the administration of the drug had been stopped and were of a rather innocent nature. One patient complained of headache, but it is not sure that this was due to the drug.

Conclusion.

Nixopan gives rather hopeful results in patients with the different worm infections and has only few transient side effects. The content of dithiazanine, however, restricts its use to strongyloides, trichures and mixed infections of these worms.

Summary.

Nixopan—Hommel—, a new anthelmintic drug, was tried on 112 patients with 133 worm infections. The results were encouraging in infections with strongyloides, trichures, oxyures and ascaris. The effect on ankylostoma was little, while protozoal infections were not affected at all. Side effects were met with in few patients and of a transient nature. As the drug also contains dithiazanine iodide, it is advised to use it cautiously in strongyloides, trichures and in mixed infections of these worms only.

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