

## Case report

# Secnidazole response in amoebiasis and giardiasis

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## Introduction

Pakistan is a developing country with a high exposure to both amoebiasis and giardiasis [1]. Generally 5-nitroimidazole is prescribed [2] but response is variable because of poor compliance secondary to longer duration of treatment and frequent dosage. Introduction of secnidazole [3], a long-acting nitroimidazole was a breakthrough in improving compliance and response in these cases. We report our experience of this new drug in the treatment of amoebiasis and giardiasis.

## Patients and methods

All patients over 12 years of age who presented to the centre with diarrhoea had a fresh stool examination. All those with *Entamoeba histolytica* (cyst or trophozoites) or *Giardia lamblia* (cyst or trophozoites) were included in the study. Patients suffering from extra-intestinal amoebiasis, toxic cases and children under 12 years were excluded from the study. The stools were examined in saline and iodine preparation. Informed consent was obtained from all patients and then secnidazole was given as 2 tablets of 1 g each as a single dose. All cases were clinically evaluated for persis-

tance of symptoms and parasitological response by checking fresh stools on day 7, 14 and 21. The clinical, parasitological and global outcomes were evaluated as follows. Side-effects of the drug were also noted.

- Failure: pathogen present on day 7
- Relapse: pathogen absent on day 7, but present on day 14 or 21
- Cure: no pathogen on day 7, 14 or 21

## Results

A total of 57 cases were evaluated (age range from 15 years to 65 years). There were 35 males and 22 females. Of 57 cases, 31 had *E. histolytica* in the stool (11 trophozoites, 20 cysts), 22 had *G. lamblia* (10 trophozoites, 11 cysts, 1 both) and 4 had mixed infection. Of 31 cases with amoebiasis, 25 were cured, 3 were treatment failures and 3 had a relapse. Of 22 with giardiasis, 17 were cured, 4 were treatment failures and 1 had a relapse. Of 4 cases with mixed giardiasis and amoebiasis, 3 were cured and one was a treatment failure. Abdominal pain, diarrhoea, tenesmus and blood in stools were the major presenting features. All symptoms subsided in all but 7 cases who had persistence of abdominal pain till day 21. The drug was well tolerated in all cases.

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Received: 20/01/98; accepted: 12/04/98

## Discussion

Using a single dose of 2 g secnidazole, the overall cure rate was 79%. The individual cure rates for amoebiasis were 81%, for giardiasis 77% and for mixed infection of amoebiasis and giardiasis 75%. A similar overall cure rate of 83% was reported for amoebiasis in our previous study [4]. When a combination of diloxanide furoate and metronidazole (Entamizole) was used as one tablet three times a day for 5 days, a 100% cure rate was achieved for both amoebiasis and giardiasis, with a 91% and 84% symptomatic relief in the two conditions respectively [5]. Similar results have been reported for this combination else-

where [6–8]. WHO has recommended a single dose therapy to improve compliance and response and reduce side-effects [2].

From this study it appears that for individuals who are suspected of having low compliance (e.g. those from lower socio-economic groups, those living in areas where the drug is not available or those who complain of a bad taste in the month following nitroimidazole intake) should be prescribed secnidazole as a single therapy to achieve approximately 80% clearance. For others, especially those who do not show clearance or have recurrent infection, a combination of metronidazole and diloxanide furoate should be given.

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