A PROSPECTIVE EVALUATION OF THE EFFICACY AND TOLERANCE OF SECNIDAZOLE IN TREATING VAGINITIS

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SUMMARY

A prospective, double blind randomised trial was undertaken to assess the efficacy, tolerance of secnidazole a newly developed nitroimidazole by comparing it with metronidazole.

Of the 55 cases under trial, 24 with secnidazole and 31 with metronidazole, clinical improvement or cure was reported in 71% and 73% respectively. Tolerance assessed by the clinician was excellent to moderate in 88% with secnidazole and 81% with metronidazole, with 5 and 7 patients complaining of definative drug related adverse events in the two groups.

The comparative study concludes that secnidazole offers a satisfactory alternative to metronidazole with better patient compliance.

INTRODUCTION

Infective vaginitis is probably the commonest gynaecological complaint, with trichomoniasis and nonspecific bacterial vaginitis accounting for a majority of cases in nonpregnant women. While the efficacy of oral metronidazole and tinidazole in treating these infections is well established, the therapy carries with it a significant number of gastrointestinal and allergic side effects.

Secnidazole is a new generation 5-nitroimidazole with a broad spectrum of antiprotozoal activity that includes T. Vaginalis. It is also effective against G. vaginalis. An important feature of secnidazole is its long half life of 19 hours, with a high serum concentration of upto 72 hours after the administration

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of a single oral dose of 2 gms (Videau et al, 1978).

A prospective clinical trial of this new drug was undertaken by us to assess the clinical efficacy and tolerance of secnidazole in patients with vaginitis by a comparison with metronidazole.

MATERIAL AND METHODS

The study was designed as a double-blind, randomised comparison in parallel groups of identical patients.

The patients were between the age of 18 to 50 years, presenting with a clinical picture of vaginitis. Pregnant or lactating women and patients giving a history of allergy to nitroimidazoles or those who had received similar treatment within two weeks of the commencement of the study were excluded. Due care was taken to exclude the patients showing clinical features of vaginal candidiasis.

The treatment was allocated randomly to patients according to a randomisation table. The patient's sexual partners were also given similar treatment. The patients received either 2 gms secnidazole or 2 gms metronidazole in a single dose.

The patients were subjected to clinical examination, before and one and two weeks after treatment, for the presence or absence of signs and symptoms. At the same time, patients were also asked to assess the tolerance to the treatment from their own point of view.

Any adverse event observed during the clinical examination or reported by the patients was carefully recorded. Attempts were made to correlate these events with the trial medication.

Each patient was subjected to laboratory investigations before and at the end of treatment, which included a routine haemogram, a hepatic and a renal profile. The patient were not permitted any other medication while under study.

RESULTS

Of the 60 patients enrolled, 5 dropped out during the trial. Twenty four patients treated with secnidazole and 31 patients treated with metronidazole were analysed (Table I). All the patients presented with vaginal discharge. Patients in the secnidazole and metronidazole groups, had burning micturation in 33.3% and 45.2% respectively and presented with comparable symptomatology (Table II).

As seen in Table III the percentage reduction in symptomatology was comparable and varied from 79.1% to 100% in the secnidazole group and 79.3% to 100% in the metronidazole group.

An evaluation of clinical response

Table I

Demographic Data

Treatment Group	Number of Patients Enrolled	Number of Drop-Outs	Patients Analysed	Age
Secnidazole	26	2	24	37.6
Metronidazole	34	3	31	30.9

showed a clinical improvement or cure in 70.8% of the secnidazole group and 74.2% of the metronidazole group (Table IV).

The physician's assessment of patients' tolerance, based on the adverse events reported was 87.5% "excellent" or "moderate" in secnidazole and 80.6% with metronidazole. Six patients who had received secnidazole complained of adverse evens, of whom 3 had definite and 2 had possible relationship with the trial drug. The adverse events consisted of nausea, vomiting and metallic taste. Eleven patients treated with metronidazole had adverse events of whom 3 had definite, and 4 had possible relationship with the trial drug. These included anorexia, nausea, vomiting, headache, metallic taste, skin rash, abdominal pain and pruritus. The adverse symptomatology is recorded in Table VI. The findings of routine haemogram and blood biochemistry of all patients before and after the treatment were within the normal laboratory range.

Table III

Percentage Reduction in Symptomatology

Signs and Symptoms	Secnidazole				Metronidazole			
	Number of in whom present			% Reduction 14th Day	Number of in whom present			% Reduction 14 Day
	Day 0	Day 7	Day 14		Day 0	Day 7	Day 14	
Vaginal Discharge	24	15	5	79.1%	29	19	6	79.3%
Burning Micturation	8	5	0	100%	14	6	1	92.9%
Dysuria	3	2	0	100%	6	1	0	100%
Prutitus	5	3	0	100%	3	0	0	100%

DISCUSSION

Epidemiological facts damand a rapidly effective treatment of vaginitis preferably administered in a single large dose which will ensure patients compliance. In the present study, secnidazole has achieved these expectations, its efficacy comparing well with metronidazole. Along with a high clinical efficacy rate, secnidazole has demonstrated a moderate to excellent tolerance in 75% and 87.5% according to patient and physician assessment respectively. It is noteworthy that we assessed the tolerance in the light of nature of

Table II

Clinical Profile

Signs and Symptoms	Secnidazole N = 24	Metronidazole N = 31
Vaginal Discharge	24 (100%)	31 (100%)
Burning Micturation	8 (33.3%)	14 (45.2%)
Dysuria	4 (16.0%)	6 (19.0%)
Pruritus	2 (8.3%)	2 (6.5%)

Table IV

Global Evaluation

Evaluation	Secnidazole N = 24	Metronidazole N = 31
Clinical Cure	9 (37.50%)	9 (29.0%)
Improvement	8 (33.3%)	14 (45.2%)
Failure	7 (29.1%)	8 (25.80%)

Table V

Physician's assessment of tolerance at the end of treatment

Assessment	Secnidazole	Metronidazole
Excellent to good	10 (41.70%)	12 (38.70%)
Moderate	11 (45.80%)	13 (41.93%)
Bad	3 (12.5%)	6 (19.4%)

the undesirable events complained by the patient where as the patients assessment of tolerance was purely subjective.

79.2% patients treated with secnidazole were completely free from vaginal discharge, the cardinal symptom of vaginitis in our patients. Although attempts were made to exclude vaginal candidiasis clinically, it is possible that this was not ensured totally in the absence of vaginal smear examination. This may account for relatively low cure rate on global evaluation.

Twenty five percent patients who were treated with secnidazole complained of adverse events either definitely or possibly related to the drug. All adverse events were known events to nitroi-

Table VI

Adverse Events

		Secnidazole N = 24		Metronidazole N = 31
Number of patients showing adverse events		6		11
Number of adverse drug events		11		33
Cause effect	Definite	3	Definite	3
Relationship	Possible	2	Possible	4
	Doubtful	1	Doubtful	4
Clinical Profile of adverse events	Nausea	(4)	Anorexia	(1)
	Vomiting	(2)	Nausea	(7)
	Metallic taste	(5)	Vomiting	(7)
			Headache	(6)
			Skin Rash	(2)
			Abdominal pain	(1)
			Pruritus	(2)
			Metallic taste	(7)

midazoles and did not require to be treated specifically while there were no drop-outs due to adverse events. These events were nausea, vomiting, and metallic taste. On the other hand, the adverse events, reported by patients receiving metronidazole had a wider spectrum. The events in metronidazole group included in addition to nausea, vomiting and metallic taste, others like anorexia, headache, skin rash, abdominal pain and pruritus.

In conclusion, our comparative study established that the newly developed drug secnidazole offered a satisfactory alternative to metronidazole, with a better tolerance and a potential for better patient compliance due to a convenient "once only" dosage schedule.

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