NAUSEA AND VOMITING IN PREGNANCY

A REPORT OF A NEW DRUG TRIMETHOBENZAMIDE (TIGAN)

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Of the many anti-emetic drugs developed in the last 15 years, the antihistamines and phenothiazines are the most widely used.[1,2] It has been estimated that reactions such as drowsiness, hypotension dizziness, and insomnia occur in 20 - 75% of all patients receiving anti-emetic therapy. Most of these drugs possess side-effects of varying degrees and their severity is often proportional to the dosage.[3]

PHARMACOLOGY

This study was undertaken to assess the efficacy or otherwise of a new anti-emetic drug, trimethobenzamide, in 35 patients with nausea and vomiting of pregnancy. This drug is a substituted benzamide. The principal pathway for its anti-emetic action is essentially the same as that of the phenothiazines, but it produces no side-effects worth recording. No drowsiness, giddiness or extra-pyramidal symptoms have been observed in this trial. It acts by depressing the chemoreceptor trigger zone of the vomiting centre in the medulla. Trimethobenzamide contains dimethylaminoethoxy- and trimethoxybenzoyl groups; the first chemical group is present in diphenhydramine, which has been noted to cause central excitation as well as anti-emesis. The second chemical group is contained in reserpine which, in the minimum anti-emetic dose, has been proved to cause diarrhoea and lethargy.[4,5] But in trimethobenzamide the combination of these two chemical groups results in a compound without excitatory or sedative effects.[5]

Blood studies, urinalysis and transaminase levels have shown no abnormalities attributable to the drug.[6]

THE TRIAL

During the early part of the trial only patients with actual vomiting were treated with trimethobenzamide, since it was thought that this drug would be of use only in patients with this symptom, by virtue of the pharmacodynamic results obtained by inhibition of the trigger zone in the medulla, as reported by others. As the trial proceeded, however, it became apparent that it was effective in cases where nausea alone was present. It is most rewarding that this trial has shown that it is a non-toxic, non-sedative drug equally effective in nausea and in vomiting of pregnancy. It is a highly specific drug.

All the patients in this survey were private patients seen during their antenatal period. Slow release or timespan tablets of 300 mg. were given by mouth, twice daily in the average patient, increased to *t.i.d.* in those patients whose symptoms were regarded as severe and therefore intractable on the twice-daily dosage.

RESULTS

Poor	5	(The drug was eventually stopped and other treatment, such as hospitalization, etc., substituted)
Good	10	(where more than 24 tablets were required)
Excellent	20	(where 24 tablets or less were used)

Out of 35 patients, 30 reported that the drug had proved beneficial. The 5 patients who failed to respond all had severe hyperemesis gravidarum, and it is our opinion that if the intramuscular form of trimethobenzamide (200 mg.) had been available, some of these patients with severe symptoms would probably have responded to parenteral therapy, allowing them to continue later on the oral form. It is our intention to use the intramuscular route in future in all patients with severe hyperemesis, to make further assessments of the efficacy of this drug.

SUMMARY

1. A clinical trial using trimethobenzamide is described in patients with nausea and vomiting in pregnancy.

2. The drug has a definite place in obstetrics, as shown by 30 patients who obtained relief of their symptoms out of a total of 35 — a success rate of 85·7%.

3. It is gratifying to note that trimethobenzamide has no side-effects when used in pregnant women, thus constituting a great advance on other known anti-emetic drugs which unfortunately have the drawback of causing various undesirable side-effects, such as hypotension, drowsiness, giddiness, and extra-pyramidal symptoms.

4. It is urged that this drug be the first choice when an anti-nauseant or anti-emetic drug is indicated in nausea or vomiting of pregnancy, because of the absence of side-effects.

We wish to thank Messrs Roche Products (Pty.) Limited, Johannesburg, for the generous supplies of 'tigan' (trimethobenzamide), and their Scientific Department for the supply of clinical trial publications and valuable advice.

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