symptoms: most were afebrile. The outbreak is considered to have been caused by a virus, possibly of the Coxsackie B group.

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DIETHYLPROPION IN THE TREATMENT OF OBESITY

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Diethylpropion (tenuate) has been shown to be a useful therapeutic aid in the treatment of obesity (Wilson and Long, 1960; Seaton *et al.*, 1961; Nash, 1961; Jaffé, 1961). and their studies have confirmed the absence of toxic effects and stimulation of the central nervous system. Appetite suppression is reported to last three to four hours (Nash, 1961).

This study reports the use of a long acting preparation, tenuate dospan, one tablet consisting of 75 mg. diethylpropion incorporated with a hydrophilic colloid which allows a continuous release of the drug in the gastro-intestinal tract over a period of twelve hours. The effectiveness of this sustained release of diethylpropion has been confirmed by Hadden and Lucey, 1961.

This is the first published controlled study of tenuate dospan in general practice, and a double blind " cross over " technique was adopted.

Scope of investigation

Sixteen patients, 15 female and one male were included in the trial and no attempt at selection was made although no patient whose health demanded urgent weight loss was accepted. The intial weights varied from 70 to 135 pounds (31.8 to 61.3 kg.), and ages from 15 to 68 years.

All the patients appeared to be in good health and no attempt was made to exclude any latent disease process. None had received treatment with anorexic drugs during the previous year, although some obese patients had attempted, unsuccessfully, to lose weight by dietary means. All patients in the series had been gaining weight prior to commencing the study. It was decided to give no dietary instructions to those taking part, in order that any weight loss might be directly attributed to the anorexic property of the drug. The patients were not told that they were taking part in a drug trial and believed that all the tablets they received

would help them to lose weight.

Tablets of tenuate dospan and placebo, identical in appearance and taste were used in the trial. Bottles containing 30 tablets were prepared, each carrying a coded label; the identity of the tablet in each bottle was unknown to both the author and the patient.

When a patient was admitted to the trial she or he was given, without comment, a bottle containing 30 tablets and instructed to take one tablet at ten o'clock each morning until the next visit. At each interview, the patient was weighed by the author on the same scales and in approximately the same indoor clothing; each was asked the same questions regarding appetite and ill-effects. A personal record card was written for each patient.

The 16 patients were divided at random into two equal groups, each group commencing with one type of tablet and after three months the distribution was reversed, so that each patient acted as his/her own control. Group A commenced with diethylpropion and group B with placebo. The " cross over " design allowed assessment of the effect of the order of treatment. The code was broken on completion of the study.

Results

As will be seen from table I, during the 16 three-monthly periods when diethylpropion was prescribed all patients lost weight, from 5 to 28 pounds (2.3 to 12.7 kg.) The total weight loss of these 16 patients was 203 pounds (92.3 kg.) showing a mean weight loss of 13 pounds (5.9 kg.) or 4.3 pounds (1.9 kg.) per month. No patient on the active drug gained weight.

TABLE I

EFFECT OF DIETHYLPROPION AND PLACEBO ON THE WEIGHT OF SIXTEEN ADULTS

Change in weight	*Diethylpropion*	*Placebo*
Loss of up to 10 lbs. (4.5 kg.)	6	1
Loss between 11 and 15 lbs. (5 to 6.8 kg.)	6	0
Loss between 16 and 28 lbs. (7.3 to 12.7kg.)	4	2
Gain of up to 10 lbs. (4.5 kg.)	0	13
No change in weight	0	0

During the similar three month period on the placebo, 13 patients gained a total weight of 47 pounds (21.3 kg.) showing a mean weight gain of 3.3 pounds (1.5 kg.). The remaining three patients lost weight totalling 39 pounds (17.7 kg.) but continued to show a significant weight loss when changed to the active drug.

In group A 63 per cent of the total weight loss occurred in the first month of treatment with the active drug, whilst in group B the weight loss was evenly distributed over the three months. Previous studies (Hadden

and Lucey, 1961; Seaton *et al.*, 1961) suggest diethylpropion loses its effectiveness after four to eight weeks. There was no significant difference in the amount of weight loss in the patients who commenced with diethylpropion (group A) and those who were given the active drug after the placebo (group B), total weight loss being 104 pounds (47.3 kg.) and 99 pounds (4.5kg.) respectively.

The study was conducted over a total period of nine months, including the festive season, when the temptation to dietary excess is particularly strong. During this time the rate of weight loss of those on diethylpropion slowed appreciably (Nash, 1961).

On discontinuing treatment with the active drug, a tendency to regain weight was noted. This finding lends support to a previous suggestion (Hadden and Lucey, 1961) that treatment with a drug of this type should be intermittent rather than continuous.

No patients experienced any ill-effects from the treatment. Unlike the amphetamine and phenmetrazine group of drugs, there was no evidence of habituation or stimulation of the central nervous system. The majority of patients noted a reduction of appetite when taking diethylpropion and this decrease appeared to last for about twelve hours.

This controlled study in general practice confirms that tenuate dospan (diethylpropion 75 mg.) is effective in producing weight loss.

Summary

A double blind " cross-over " trial of tenuate dospan (diethylpropion 75 mg.) in the treatment of obesity, on a free diet in general practice, is described. The study confirms that this long-acting preparation is effective in producing weight loss. No side effects were reported.

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