

Management of Emotional Disturbances

Use of Hydroxyzine (Atarax®) in General Practice

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HYDROXYZINE is a p-chlorobenzhydryl piperazine derivative. The chemical structure is distinctly different from that of other tranquilizers. The hydrochloride of this compound is a crystalline solid, readily soluble in water and rapidly absorbed from the gastrointestinal tract. Recent pharmacological studies of the action of the drug in dogs gave evidence that hydroxyzine reduced the incidence and duration of ventricular arrhythmias,⁴ and effectively antagonized and blocked the spasmogenic actions of acetylcholine, reserpine, serotonin, histamine and posterior pituitary extract on the duodenum. In addition, Sherrod and Bobb⁸ in experiments on isolated ileum in rabbits, noted that hydroxyzine inhibited and blocked barium chloride-induced hypermotility.

Beneficial therapeutic effects in common anxiety and tension states,^{2,3,7} in certain kinds of dermatosis that are affected by psychogenic stimuli⁶ and in senile anxiety⁹ were reported in the literature. No adverse effects on liver, blood, nervous system and urinary tract were observed.

The toxicity of hydroxyzine is low.⁵ Although the usual dosage in adults is 25 mg. two or three times a day, one investigator observed that some pediatric patients, especially hyperkinetic children, may require 200 to 300 mg. daily.¹ He recommended that older children be started on 25 mg. tablets twice or three times daily, that the dose be increased until the therapeutic level was reached and that it then be decreased gradually. No obvious deleterious effects in pediatric patients receiving the drug for six months or more were observed.

DOSAGE AND CLINICAL RESULTS

The clinical study of hydroxyzine here reported upon covered a series of 41 patients ranging in age from 19 to 76 years. Hydroxyzine was chosen because of its low toxicity and its therapeutic effectiveness in patients with anxiety and tension. Some patients also had organic disease.^{3,9} The dosage in this study ranged from 10 mg. three times a day to 25 mg. four times a day. The therapeutic effects were carefully observed and the dosage was adjusted

• Forty-one patients with anxiety and tension or various conditions associated with neuroses were treated with hydroxyzine hydrochloride tablets. Of the 41 patients, eight had an excellent response, 14 a good response, 16 were improved and three responded poorly. The only side reaction in this series was temporary drowsiness which, in the majority of patients, ceased after therapy was steadily continued on the same dosage level.

upward or downward as indicated. Initial drowsiness was not considered a side reaction but as a sign of effective therapeutic response. If drowsiness persisted, however, the dosage was reduced. Most of the patients adjusted well to the schedule they started with, but in some cases the dose had to be increased. No correlation between the amount of hydroxyzine administered and the age or body weight was noted, which accords with Farah's³ observation. Ayd¹ and Farah noted that children often required much higher doses than adults and that the dose had to be fitted to the patient in all cases. A summary of the results in patients with various diseases and of dosage schedules is given in Table 1.

DISCUSSION

Although this study is preliminary and the series too small for results to be interpreted statistically, notes on the subjective responses of patients and on clinical impressions may help to illustrate the efficacy of hydroxyzine.

CASE 1. A 54-year-old waiter with anxiety and tension consulted us because of a tremor of the hands. He was especially embarrassed when, while he was serving customers, the cups rattled on the saucers. Taking one 10 mg. tablet of Atarax® three times a day improved the condition and the tremors subsided after three weeks of therapy.

CASE 2. A woman 62 years of age who for some time had been having a mild attack of bronchial asthma every 12 to 14 days reported that the attacks ceased after she began taking one 10 mg. tablet of Atarax four times a day. She was much less "nervous" and stated that she felt "so relaxed" under therapy that she forgot "little annoying things" soon

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TABLE 1.—Dosage Range and Results of Hydroxyzine Therapy in 41 Patients

Diagnosis	No. of Patients	Results				Dosage Range (Mg.)
		Excellent	Good	Improved	Poor	
Alcoholism.....	4	0	2	2	0	10 q.i.d. to 25 q.i.d.
Anxiety and tension.....	6	4	1	1	0	10 t.i.d. to 10 q.i.d.
Asthma.....	4	....	2	2	0	10 t.i.d. to 25 t.i.d.
Cardiac conditions.....	4	....	....	4	0	10 t.i.d. to 25 t.i.d.
"Colitis".....	2	1	1	0	0	10 t.i.d. to 10 q.i.d.
"Colitis" and menopause.....	1	....	....	....	1	25 t.i.d.
Epilepsy.....	1	0	0	1	0	25 t.i.d.
Hyperhidrosis.....	1	....	....	....	1	10 t.i.d.
Hypertension.....	2	....	1	1	0	10 q.i.d. to 25 t.i.d.
Hyperventilation.....	1	....	....	....	1	25 t.i.d.
Insomnia.....	4	....	3	1	0	10 t.i.d. to 25 b.i.d.
Menopausal syndrome.....	1	....	0	1	0	10 t.i.d.
Migraine.....	2	....	....	2	....	10 q.i.d. to 25 q.i.d.
Neurodermatitis.....	4	2	2	0	0	10 t.i.d. to 25 t.i.d.
Pre-menstrual tension and/or dysmenorrhea.....	3	....	2	1	0	10 t.i.d. to 25 t.i.d.
Tension headaches.....	1	....	....	0	0	10 t.i.d.
Total.....	41	8	14	16	3	

after they happened. Previously these trivialities aggravated her for days or even weeks.

Such ruminative thinking is characteristic in compulsive personalities. Alleviation of symptoms by hydroxyzine correlates with observed effects of this tranquilizer in obsessive-compulsive states.

CASE 3. A chronic alcoholic 60 years of age, who had cirrhosis of the liver, had considerable improvement in physical appearance and mental outlook while receiving hydroxyzine therapy, stated that his desire for alcohol had diminished and that he did not need phenobarbital which formerly he had taken for insomnia. There was less tremor and the patient had a general feeling of well-being.

CASE 4. A 36-year-old business executive with an acutely irritated colon reported that the frequency of stools decreased during treatment. Laboratory tests showed absence of mucus in the feces. Slight drowsiness which was noted at first disappeared as treatment—one 10 mg. tablet of hydroxyzine four times a day—continued. This was considered clinical evidence of the parasympatholytic property of hydroxyzine.

CASE 5. A woman 52 years of age with menopausal syndrome and hot flashes was given one 10 mg. tablet three times a day. One week after the beginning of therapy she said she was less nervous and that flashes occurred less frequently. In this patient, hydroxyzine apparently alleviated vasomotor instability.

CASE 6. A 39-year-old woman with premenstrual tension and dysmenorrhea of long standing was given one 10 mg. tablet of hydroxyzine three times a day, beginning a week before onset of menstruation; the drug was taken throughout menstruation and was discontinued one week after the flow had

ceased. The patient reported less tension and cramping than she had had previously.

CASE 7. A 36-year-old woman complained of "migraine headache," which she had had since age 14 and which became worse with premenstrual tension. The attacks occurred once or twice a week. She was given hydroxyzine, 10 mg. four times a day. Drowsiness was noted at first but it abated after three days of therapy. At last report, after six weeks of therapy, she had had no attacks. She said also that bowel movements, irregular before therapy, had become more regular.

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