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Clinical Notes on Buspirone

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DE MAIO, D. *Clinical notes on buspirone*. PHARMACOL BIOCHEM BEHAV 29(4) 821–822, 1988.—The main aspects of the recent development of non-benzodiazepine anxiolytic drugs are the following: the possibility of giving drugs with peculiar anxioselective profile and with no benzodiazepine side-effects; the possibility of discriminating the anxiolytic from the hypnotic activity; the possibility of a nosographic delimitation: buspirone is used mainly in the treatment of generalized anxiety disorders. All these factors point to the possibility of a guided or planned anxiolysis with a more active participation from the patients.

Anxioselective drugs Buspirone Anxiety

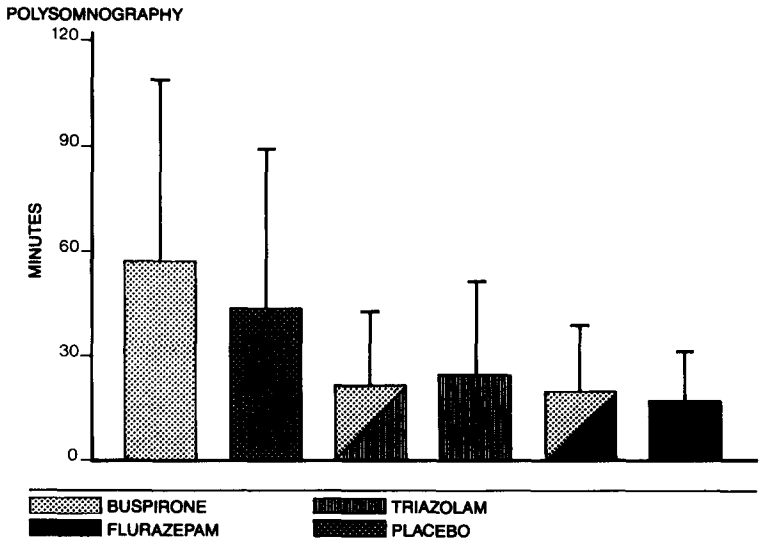

FIG. 1. Buspirone alone or associated to triazolam and flurazepam does not modify total wake time.

BOTH in the pharmacological and in the clinical field the development of new anxiolytic therapies with the introduction of some non-benzodiazepine drugs must be considered as an important event.

From a clinical point of view, on the basis of literature data [1] and my own experience, I would like to draw your attention on the following considerations:

(1) The first consideration is the possibility of giving drugs with anxiolytic profile without producing benzodiazepine effects. There is clear evidence, supported by the studies made on both animals and human beings, that the clinical profile for buspirone is "anxioselective"; that is, it relieves anxiety without the accompanying properties of the benzodiazepines (sedation, muscle relaxation, seizure control) [4];

(2) The second consideration is the possibility of discriminating the anxiolytic activity from the hypnotic one, which up to now were considered as strictly connected. Results from laboratory studies on sleep have shown that buspirone has no hypnotic effect. The results of a comparative study with short and long acting benzodiazepines, usually triazolam and flurazepam, showed that the evening dose of buspirone has no hypnotic effect; that total wake time with buspirone and placebo was approximately equal; that triazolam and flurazepam decreased wake time and this decrease proved not to be affected by the presence of buspirone (Fig. 1).

These findings suggest that anxiety and sleeplessness are two pharmacologically distinct processes, as can be proved by the comparison with zopiclone, an hypnotic drug devoid of anxiolytic effects;

(3) Buspirone doesn't induce tolerance or dependence. The lack of withdrawal syndrome observed in the laboratory

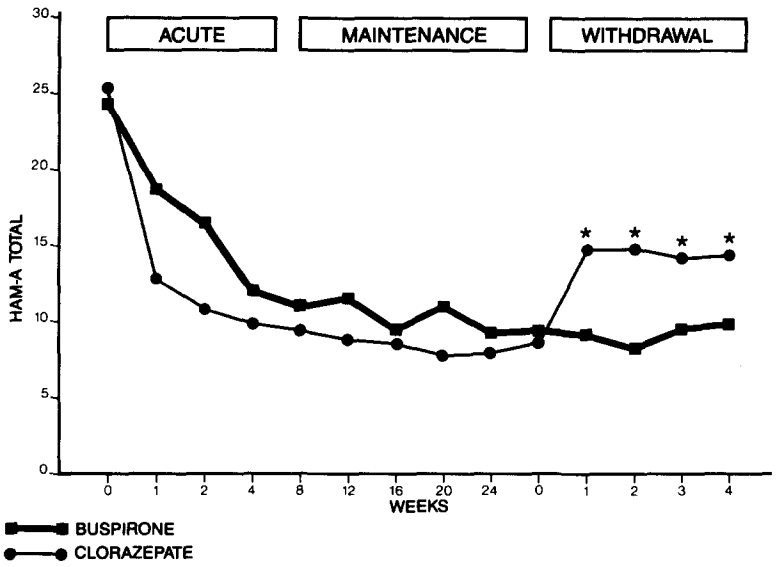

FIG. 2. Anxiolytic withdrawal study (Rickels) completer patients—extender data. Buspirone withdrawal—but not clorazepate—does not induce anxiety rebound.

animal was confirmed by a clinical study showing a clear withdrawal syndrome after the suspension of a therapy with clorazepate but not with buspirone [2] (Fig. 2);

(4) The above presented data enable us to envisage the possibility of a nosographic delimitation based on the results obtained with drugs. Buspirone, in fact, has been used in the therapy of generalized anxiety disorders which had previously been chosen as the target illness [3]. As a consequence of the development of a new and more precise classification of anxious disorders, it is possible to test a drug in a "focused" anxious pathology and the positive results obtained can be considered as the biological evidence of a nosographic entity. Therefore, the indications for the clinical usage of the new anxio-selective compounds are more specific.

(5) From a phenomenological point of view, all the above mentioned findings show the possibility of reaching a guided or planned anxiolysis with involvement and active participation of the patient. Moreover, these data allow us to advance the new concept of *"anxiolysis by lysis"* as opposed to the old *"anxiolysis by crisis."*

REFERENCES

1. Knapp, J. E. Clinical profile of buspirone. *Br J Clin Pract* **39**: Suppl 38, 95–102, 1985.
2. Rickels, K. Buspirone, clorazepate and withdrawal. Presented at the 1985 Annual Meeting, American Psychiatric Association Dallas, TX, May 18–24, 1985.
3. Rickels, K., K. Weisman, N. Norstad, M. Singer, D. Stolz, A. Brown and J. Danton. Buspirone and diazepam in anxiety: a controlled study. *J Clin Psychiatry* **43**: 81–86, 1982.
4. Taylor, D. P., D. K. Hyslop and L. A. Riblet. Buspirone: a model for anxioselective drug action. *Soc Neurosci Abstr* **6**: 791, 1980.