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Correspondence

A BETA-ADRENERGIC STIMULANT IN DEPRESSION

DEAR SIR,

I was interested in the report by Lecrubier *et al* in the *Journal* (April 1980, **136**, 354–8).

Our research group undertook a trial of another beta-adrenergic stimulant, orciprenaline (Wheatley, 1975), in which we were unable to demonstrate any antidepressant effect from that drug. However, we used oral administration and I note that the authors of the present paper resorted to intravenous infusion, because of the 'low bioavailability' of salbutamol by the oral route. Indeed, the authors comment that further research in this area may be difficult, as there is "no orally suitable drug . . . available to date".

Both salbutamol and orciprenaline are used, mainly by oral administration, by patients suffering from asthma, for which indication they are remarkably effective. One wonders therefore what differences there may be with regard to bioavailability, in the treatment of depression on the one hand and of asthma on the other. Possibly the explanation lies in the fact that orciprenaline (at least) would not appear to pass the blood brain barrier (Dengler, 1966), although in our study we postulated a possible peripheral action analagous to that of beta-adrenergic blocking drugs in anxiety states.

Perhaps the most encouraging aspect of the report was the rapidity of action of salbutamol, since the 'lag period' of 7–10 days with conventional antidepressant drugs is a serious drawback in clinical practice. However, the antidepressant action of the tricyclics at least may be accelerated by the addition of a small dose of triiodothyronine (Prange, 1968; Wheatley, 1972), which does seem to provide an alternative, although it has not been adopted into general therapeutic use.

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SEX DIFFERENCES IN THE SEASONALITY OF SCHIZOPHRENIC BIRTHS

DEAR SIR,

Sex differences in the seasonality of schizophrenic births were noted by Dalen (1974) in South Africa and by Syme and Illingworth (1978) in Australia. To test for such differences in the northern hemisphere, data by sex were obtained for all schizophrenic patients born between 1927 and 1955, and admitted to the Missouri State Hospital system between 1962 and 1976, the total number analysed being 9,738 males and 7,513 females. As controls all births in Missouri by sex for the years 1927-1930 and 1942-1955 were used (data for 1931-1941 by sex are not available). Missouri has previously been shown to have a strong winter and spring predominance of schizophrenic births (Torrey *et al*, 1977) and to have shifted from a winter predominance to a spring predominance between the 1920's, and the 1940's, (Torrey and Torrey, 1979).

Female schizophrenic births were compared with all female births and male schizophrenic births with all male births. The chi square with 1 d.f. was used to test for statistical significance. The results showed a seasonal pattern of schizophrenic births for both sexes which was very similar. January, February, March and May were the four months with the greatest excess of schizophrenic births for both sexes although the rank order differed (males: February, January, March, and May; females: January, May, February, and March). Analysis of the schizophrenic births by decade of birth and by sex also showed no major differences and no suggestion that the previously described shift was more a function of one sex.

We conclude that for the state of Missouri there is no evidence of any important sex differences in the