

**Steroid-Induced Euphoria**

**Sir:** Watts (*Journal*, July 1988, 153, 131) writes of his personal feeling of euphoria after receiving steroids. The British National Formulary agrees that euphoria is frequently observed after steroids, but warns: "A serious paranoid state or depression with risk of suicide may be induced, particularly in patients with a history of mental disorder." It would thus be difficult to justify to an ethical committee a trial of steroids in depressed patients.

However, how does one drug cause euphoria in some individuals, but dysphoria or even paranoia in susceptible others? The answer may lie in the GABA-benzodiazepine receptor complex. Alphaxalone and other steroid-based anaesthetics are thought to exert anaesthetic action by potentiation of GABA (Harrison & Simmonds, 1954). Potentiation of GABA in animal research has been shown to influence monoamine systems resulting in e.g. decreased 5HT release (Schlicker *et al*, 1984), decreased dopamine release, but increased noradrenaline turnover (Scatton *et al*, 1982). It can thus be postulated that steroids exert their psychotropic effects by modulation of monoamine systems, via the GABA-benzodiazepine receptor complex. Whether steroids induce no change, euphoria, depression, or paranoia will presumably depend on the balance of noradrenaline, serotonin, and dopamine in that individual. The rapid onset of euphoria noted by Dr Watts

would be consistent with rapid increased noradrenaline turnover, i.e. there is no need to wait 2 weeks for up-regulation of receptors.

If other anaesthetics (e.g. barbiturates) also exert their action via GABA receptors, as is now believed (Keane & Biziere, 1987), this theory may provide a model for post-operative psychosis. Stated simply, prolonged potentiation of GABA receptors by anaesthetic agents at operation may induce changes in monoamines, particularly dopamine, to induce psychosis in susceptible individuals.

JEREMY SEYMOUR

*Brunswick House  
299 Glossop Road  
Sheffield S10 2HL*

**References**

- HARRISON, N. L. & SIMMONDS, M. A. (1984) Modulation of the GABA receptor complex by a steroid anaesthetic. *Brain Research*, **323**, 287–292.
- KEANE, P. E. & BIZIERE, K. (1987) Minireview: the effects of general anaesthetics of GABAergic synaptic transmission. *Life Sciences*, **41**, 1437–1448.
- SCATTON, B., ZINKOVIC, B., DEDEX, J., LLOYD, K. G., CONSTANTINIDIS, J., TISSOT, R. & BARTHOLINI, G. (1982) Aminobutyric acid (GABA) receptor stimulation. III. Effect of progabide (SL 76002) on norepinephrine, dopamine, and 5-hydroxytryptamine turnover in rat brain areas. *Journal of Pharmacology and Experimental Therapeutics*, **220**, 678–688.
- SCHLICKER, E., CLASSEN, K. & GOTHERT, M. (1984) GABA<sub>B</sub> receptor-mediated inhibition of serotonin release in the rat brain. *Naunyn-Schmiedeberg's Archives of Pharmacology*, **326**, 99–105.

**A HUNDRED YEARS AGO****Qualifications of Asylum Superintendents**

*To the Editors of The Lancet*

Sirs,—The circumstances connected with the recent appointment of a medical superintendent to the Sussex County Lunatic Asylum at Hayward's Heath call, in my opinion, for some comment. They have excited among junior asylum men a feeling of surprise allied to consternation, and afford subject for most serious consideration to every assistant medical officer in the kingdom.

In the advertisement announcing the vacancy it was stated that the superintendent must be "a Doctor of Medicine of a University in the United Kingdom and a Fellow, Member, or Licentiate of the College of Physicians of London, Edinburgh, or Dublin". (The italics are my own.) This restriction at once had the

effect of shutting out nine-tenths of the assistant medical officers in England; among them men of long lunacy experience, many of whom possessed the necessary British degree, but lacked a diploma from a College of Physicians. While others again, who had taken up one of the licences, and had in addition graduated MB, CM were told on inquiry that they were ineligible, not having an MD degree. Of course, scores of "doubly qualified" men were excluded. Attention was called to the unfairness of the restrictions by your correspondent "MD, MCh, MRCS, LSA," in your issue of Jan. 7th. But the worst is to come.

The appointment has now been made. The successful candidate has, I am informed, never held a resident post in any asylum, his sole knowledge of the care and cure of the insane having been derived from occasionally acting as a substitute for one of the Lord

Chancellor's Visitors in Lunacy. His medical qualifications fulfil the requirements of the committee, and he is doubtless a man of much experience in his profession, having qualified so long ago as 1864, and having been in private practice for, at any rate, twenty years; but his, I maintain, is not the kind of training calculated to make a successful medical superintendent. Promotion in the lunacy world has been slow enough of late years in all conscience, and assistant medical officers of twelve and fifteen years' standing had already begun to ask themselves whether they had not made a grand mistake in their choice of a specialty. This last appointment will doubtless summarily settle the question for many of them, and cause them to throw away their years of special training and embark in general practice. Were any newly qualified member of the profession to ask my advice as to entering upon asylum work with a view to ultimately obtaining a superintendency, I should now feel tempted to advise him to start in private practice, and trust to the chapter of accidents for translation to the control of an asylum. I should also quote Sir Joseph Porter, to the effect that –

“If you stick to your desk and never go to sea,  
You perhaps may be made ruler of the Queen's  
Navee.”

“The bearings of this observation lays in the application on it.” (Capt. Bunsby).

In conclusion, I beg to assure you that I have written this with no intention of making a personal attack upon the successful gentleman, whom I have never had the pleasure of meeting, and against whom I do not bear the slightest ill-will.

I am, Sirs, your obedient servant,

MRCP Lond, MRCS

Jan. 31st, 1888.

\*Our correspondent will see in another column that the gentleman elected has for many years been engaged in the inspection of asylums as medical visitor to the private asylums in the eastern division of Sussex. Ed. L.

#### Reference

*The Lancet*, 4 February 1988, 256.

*Researched by Henry Rollin, Emeritus Consultant Psychiatrist, Horton Hospital, Surrey*