

PITTS' AND McCLURE'S

LACTATE-ANXIETY STUDY REVISITED

DEAR SIR,

Grosz and Farmer (*Journal*, April 1972, 120, 415-8) have reported the results of an interesting study showing that anxiety symptoms can be precipitated by the production of metabolic alkalosis. Unfortunately, they present their results as a refutation of the previous conclusions of Pitts and McClure (*New Eng. J. Med.* 1967, 27, 1329-36,) that an anxiety state can be induced by elevating blood lactate concentration. It is true that the data of Grosz and Farmer, if confirmed, would lead to a new interpretation of the previous conclusions regarding blood lactate. However, these newer findings should be viewed simply as an extension and refinement of the hypothesis of Pitts and McClure. The tendency in psychiatric research to view an incomplete or partially correct theory as an error discourages investigators from making useful theoretical formulations. Implicit in the scientific process is the assumption that all knowledge is incomplete and that all theories will later be modified. Had Pitts and McClure not demonstrated that lactate could induce an anxiety attack, Grosz and Farmer would probably not have explicated the apparent mechanism. In fact, the newer work confirms the earlier findings in regard to lactate but provides a better explanation without in any way diminishing the contribution of Pitts and McClure.

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DEPRESSION FOLLOWING
FENFLURAMINE WITHDRAWAL

DEAR SIR,

Fenfluramine is widely used in the management of obesity. It has a significant anorectic effect (Munro *et al.*, 1966), although its routine use has been described as disappointing (Anderson, 1972). Depressive symptoms have been shown to occur in normal subjects following withdrawal of the drug (Oswald *et al.*, 1971). Golding (1970) has also described such symptoms in patients and mentioned a patient who developed a severe agitated depression on stopping the drug. I have previously reported a case of recurrent depression following fenfluramine withdrawal in a patient who had recent recovered from a puerperal depressive illness (Harding, 1971). I now report three more cases of depression following cessation of fenfluramine therapy.

Case 1

A 29-year-old housewife with no previous psychiatric illness had been treated with fenfluramine at a dose of 80 mg. daily for 12 weeks. She stopped the drug abruptly because she had failed to lose weight. Two weeks later she was referred to a psychiatric clinic. She gave a history of 'strange feelings in the head', irritability, sleeplessness and fearfulness which had started 48 hours after stopping fenfluramine. Three days later she found herself unable to cope with housework or to carry on her usual social activities. She experienced a marked loss of libido, fits of crying and pervasive feelings of sadness. When first seen she was agitated and tearful. She described a dull pain in her abdomen and said 'I'm sure I have a cancer in my liver'. She displayed feelings of unworthiness and clinically was severely depressed. Her appetite was normal. Physical examination revealed no abnormality except obesity.

She was admitted to hospital, and treatment with amitriptyline 150 mg. daily was commenced. After five days her clinical condition was unchanged. She was observed to be sleeping less than two hours each night. At a ward meeting she was continuously tearful and self-reproachful. She was then given fenfluramine 60 mg. daily in addition to the amitriptyline. Two days later she began to sleep better, to take part in occupational therapy and ward activities. Ten days after admission she was no longer depressed and was well enough to return home. Fenfluramine was tailed off over two weeks and amitriptyline continued for two months after discharge. She remained well (but overweight) five months later.

Case 2

A 54-year-old divorced woman, with no previous psychiatric illness, who owned and managed a small restaurant, had been treating herself with fenfluramine tablets obtained from a 'friend'. Dosage had been variable, but she had taken an average of 60 mg. daily for a period of nine weeks. The drug was stopped abruptly because the patient's friend had no further supplies. Three weeks later the patient was admitted to hospital, having taken an overdose of 60 aspirin tablets. She made an uneventful recovery from the overdose. When seen by a psychiatrist she gave a two week history of 'crying for no reason', early wakening and 'bad feelings in her head'. She believed that her business was on the verge of bankruptcy, due to her mismanagement. (Information from her relatives showed that this was untrue.) She felt she wanted to be dead and said 'You should have let me die, I'm no good to anyone'. She was deeply depressed, self reproachful and remorseful. She was transferred to a psychiatric hospital, where she was treated with a course of 6 electroconvulsive shocks. Her depressive symptoms responded well and she was discharged home four weeks later. She failed to attend for follow-up appointments, but a home visit after two months showed her to be well and running her business efficiently.

Case 3

A 26-year-old housewife with a 14-month-old child was treated for her mild obesity with fenfluramine at a

dose of 80 mg. daily for a period of seven weeks. (She had been seen two years previously by a psychiatrist when a diagnosis of anxiety state with associated depression had been made. This had responded well to a ten-session course of psychotherapy and treatment with diazepam 15 mg. daily.) The patient was given clear instructions by her doctor that she was not to stop taking fenfluramine suddenly, but when she realized that she might be pregnant, because her period was overdue, she immediately stopped taking the drug because she was afraid it might harm the unborn baby. Ten days later she was referred to a psychiatrist. She gave a history of being 'strung up' and nervous for about a week. Although she had wanted to be pregnant she was convinced that the baby was deformed and therefore wanted her pregnancy terminated. She was tearful and appeared mildly depressed. She had no suicidal feelings at that time. Her sleep pattern was normal. No drug treatment was given, but she was seen every other day for supportive psychotherapy. A week later a pregnancy test was positive. At that time she appeared more depressed and had sleep disturbance (initial insomnia and early wakening) and some suicidal thoughts ('I want an abortion and I don't care if I die'). She found it difficult to cope with her child and neglected her housework. Treatment with fenfluramine was recommenced at a dose of 80 mg. daily. Three days later her clinical condition had improved strikingly. She no longer wanted a termination, she was sleeping well and did not appear depressed. After two weeks at this dosage, fenfluramine was tailed off over a period of three weeks. The patient reported some symptoms of anxiety during this time but did not become depressed. She subsequently had a twelve-week spontaneous abortion to which she responded by a period of grief lasting three to four weeks. She remained well four months later.

These cases lend further support to the suggestion that depressive illness may be precipitated by abrupt withdrawal of fenfluramine. Two cases responded well to restarting fenfluramine, which was then tailed off gradually.

Fenfluramine should therefore not be used in patients with a history of depressive illness (and depression is common in middle-aged obese women (Anderson, 1972)). It is important that all patients taking fenfluramine should be given clear instructions not to stop taking the drug abruptly. Nevertheless some patients will ignore or forget such advice. The possibility of recent fenfluramine withdrawal should therefore be considered in all patients presenting with a depressive illness.

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'THE DEATH OF A PROFESSION'

DEAR SIR,

Mrs. Jansen's paper on 'The death of a Profession' coincided with the publication of a study by Dr. Hakki and myself on the use of hospital beds in neighbouring East London Boroughs (Robin and Hakki, 1972), in which we show some of her fears to be demonstrably true, and in particular that a community based social work service was less successful than a hospital related service in preventing hospital chronicity, while at the same time making little impact on the use of short stay beds.

We may perhaps be forgiven if, like many others, reading the comment on the Worcester Development Project (Department of Health and Social Security, 1971) and *Hospital Services for the Mentally Ill*, (H.M.S.O., 1971), we understood that the provision of 65 day places per 100,000 population was in addition to the 50 beds provided for in-patients. In fact since Dr. Hakki's departure to the United States I now learn from the Department of Health and Social Security that 'the day places will be available for those in-patients who are well enough to leave the ward and spend the whole, or part of the day in the day hospital along with patients who will attend from the community' (personal communication, March, 1972). In practice there will therefore be 15 day patient places per 100,000 population, as in a modern psychiatric unit one would expect the in-patients to use the day facilities to the full. If, however, one accepts that a quarter of in-patients do not, however, leave the wards, then there will be 28-day patient places. This would mean that in East Ham one day patient place would be required to relieve occupancy of one bed, while in West Ham one day patient place would be required to relieve occupancy of three beds—perhaps a little optimistic.

I also understand that the Department have suggested a standard of 30 beds per 100,000 population or 250 beds per 100,000 population over the age of 65 for psychogeriatric patients. These figures almost exactly coincide with those derived from our calculations.

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