He was apparently well until twelve years ago when his father died suddenly at the age of 57 from coronary thrombosis. Immediately following his father's death, the patient began ruminating about death, and after leaving school at 15 he remained in the home for two years. During this period his mother reported that he refused to wash at all.

Over the next few years he was obsessed with the following list of ideas:

(i) Fear of becoming homosexual, having on one occasion tried to insert his penis into his own rectum.

(ii) Fear of developing breasts and becoming hairy.

(iii) Fear of shaving in case he bled to death.

(iv) Fear of taking an overdose or of drinking poison.

(v) Fear of dying in his sleep, which led him to pace the floor at night disturbing his family.

(vi) Fear of violence.

(vii) The number of words in a sentence became a matter of prolonged rumination.

His last admission, in 1968, was precipitated by the patient developing uncontrollable ideas that there was a piece of paper in his rectum upon which was written 'something to do with homosexuality'. During this last phase he demanded constant reassurance from everybody with whom he came into contact and caused a great deal of antagonism amongst the other patients.

Physical examination, including chest and skull X-rays and EEG, revealed no abnormality.

Psychometry showed him to be of low-average intelligence, 25th percentile on Mill Hill Vocabulary Test and Progressive Matrices. There was no evidence, on psychometric testing, of schizophrenic thought disorder.

Previous treatment had included prolonged courses of ECT, phenothiazines, tranquillizers, tricyclic anti-depressants and relaxation therapy, and in December 1967 he had a pre-frontal leucotomy which provided only temporary relief.

On review in January 1970 it was noted that he had never received a monoamine oxidase inhibitor.

Phenelzine was started in doses of 15 mgm. t.d.s., and within two weeks there has been a complete change in his behaviour. He looked relaxed, did not complain, talked freely and was able to go to the town, which he had not been able to do for over twelve months.

Improvement has been maintained for four months; the patient is now back at home symptom-free.

In view of this it seems that mono-amine oxidase inhibitors may have a place in the treatment of obsessional neurosis and are worthy of trial in this intractable incapacitating illness.

We wish to thank Professor Alistair Munro for his help and advice and for permission to publish this case.

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Reference

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BURDEN RESEARCH MEDAL AND PRIZE

Dear Sir,

You kindly included an announcement of the above in the *British Journal of Psychiatry* in your November 1969 issue. The first Burden Research Medal and Prize for outstanding research work in the field of mental subnormality, published or presented as a paper to a learned Society during 1969, has been awarded to Dr. Barry Richards, St. Lawrence's Hospital, Caterham, Surrey. The presentation was made on Monday, 8 June, at a luncheon of the Burden Trustees, held at Stoke Park Hospital, Bristol.

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GRADUAL WITHDRAWAL OF TRANQUILLIZERS WITH THE HELP OF ASCORBIC ACID

Dear Sir,

Since the introduction of tranquillizing drugs in the treatment of mental illness and behaviour disorders in mentally retarded patients, many good and many adverse effects of the drugs have been reported. Numerous papers have appeared dealing with the question of the most suitable drugs, the length of treatment, dosages, combination of treatments and effects of sudden or intermittent withdrawal of the drugs (Whittaker and Hoy, 1963; Prien *et al.*, 1969; Abenson, 1969).

We are reporting the results of the first two years of a tranquillizer-withdrawal scheme, which consisted of three months of gradual withdrawal of tranquillizers and their replacement—tablet for

tablet—by ascorbic acid, followed by three months of gradual withdrawal of ascorbic acid and eighteen months observation of the patients. The constituent of the replacement tablet was known only to the pharmacist, another consultant and the author.

Ascorbic acid tablets (50 mg.) were chosen instead of inert placebo tablets for the following reasons: Ascorbic acid is one of the essential vitamins, has an obvious taste, is available in tablets different in size from other drugs, has no known serious side effects, and is cheap.

For this trial we selected a hospital which houses 220 severely mentally retarded males, mostly middle aged and elderly, and included all 57 patients who were on tranquillizers. The IQs of the patients varied from 11 to 57 (mean 27·4) and their chronological ages ranged from 20 years 10 months to 63 years 10 months (mean 45 years 9 months). The length of treatment with various tranquillizers, before the trial, varied from 4 months to 13 years 8 months (mean 6 years 7 months). Anti-epileptic, anti-hypertensive drugs and drugs for other physical illness were unchanged throughout the trial.

The results of the trial and our observations are as follows:

1. On 1 January 1970, at the end of the two-year trial, 30 (52·6 per cent) of the 57 patients on tranquillisers before the trial remained off tranquillizers.

2. No side effects were noted throughout the trial.

3. During the two years, 46 patients lost weight (mean 8·9 lb.); 29 patients off tranquillisers lost, on an average, 11·6 lb. and 17 put back on tranquillisers lost, on an average ,5·7 lb. Loss of weight on placebo tablets was noticed in a previous drug trial in the same hospital (Jancar, 1962).

4. Patients put back on drugs had been receiving tranquillizers for an average of 8 years and 4 months before the start of the trial and patients remaining off tranquillizers for an average of 5 years and 4 months.

5. The two periods when the highest number of patients were put back on tranquillisers were during the second month of the trial and at the end of the withdrawal of ascorbic acid.

6. In the group of patients put back on tranquillizers, 20 had physical disorders or mental illness superimposed on mental retardation, while of those who remained off tranquillizers, 9 only were similarly afflicted.

7. There is no significant statistical difference in the IQs and chronological ages between the group still receiving tranquillizers and the group off tranquillizers, but there is an appreciable difference in the length of treatment before the trial ($P = <0{\cdot}01>0{\cdot}002$) and a noticeable difference in loss of weight ($P = <0{\cdot}05>0{\cdot}01$) after the trial.

8. The frequency of fits in the epileptic patients was not affected throughout the trial.

9. There was a saving on the purchase of drugs during the two years.

From the experience and the results we obtained from this trial we are conducting similar trials in other hospitals in the Stoke Park Group. The findings will be compared and reported at a later date.

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RONYL (PEMOLINE) IN OVERACTIVE MENTALLY SUBNORMAL CHILDREN

Dear Sir,

Mentally handicapped children who show abnormally active behaviour are often admitted to hospital because they are unmanageable at home or in day centres. If their misdirected activity can be controlled, these children will often respond to teaching and training so that they can return home.

The British National Formulary, 1968, suggests that amphetamine is a useful drug for the treatment of troublesome overactivity in children with autism and mental subnormality. The apparently paradoxical effect of amphetamine, a stimulant drug, in such children, prompts the thought that other stimulant drugs might be worthy of a trial. Should alternative drugs be successful, their use would be preferable to amphetamine if they are safer and less likely to be abused.

Pemoline, 5 phenyl-2 imino-4 oxo-oxazolidine is a mild stimulant of the central nervous system. Twelve overactive severely mentally subnormal in-patients, 3 females, 9 males, aged from 7 to 17 years, with Terman Merrill intelligence quotients ranging from 20 to 40 were given pemoline in a double blind trial. They had been in hospital for periods of 2 to 13 years. Five of the patients suffered from epilepsy. Anticonvulsant and major tranquillizing drugs which the patients were receiving were continued unchanged during the trial. There was one case each