

from those of Nasrallah *et al* (1978) in that we found a regular pattern of plasma fluphenazine concentrations during the interval between injections (Fig 1). Each

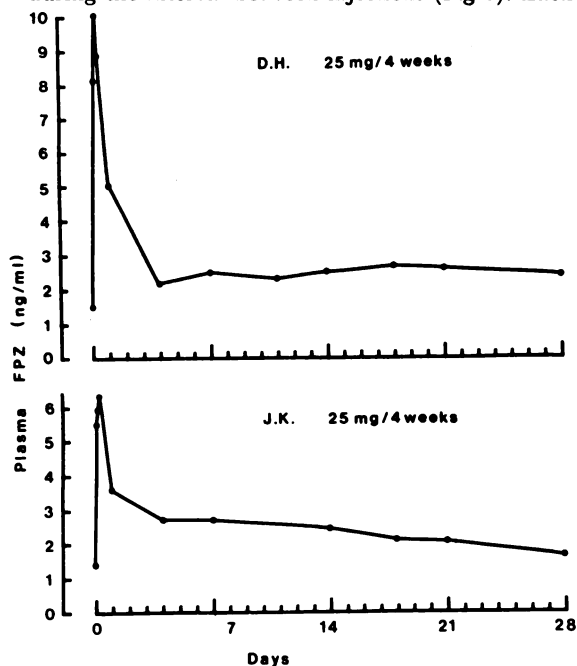


FIG 1.—Plasma fluphenazine 'profiles' after an injection of fluphenazine decanoate in 2 subjects maintained on a regime of 25 mg every 4 weeks. (I would like to acknowledge the help of Drs T. R. E. Barnes and T. Kidger in the study of these patients).

injection was followed by a rapid rise in plasma fluphenazine concentrations to a maximum at 1–8 hours. The height of this peak varied from 1.2 to 12 times the pre-injection level. Within the next 12–36 hours, the plasma fluphenazine fell to a level slightly above that found before injection and then remained stable until the next injection, suggesting a steady release of fluphenazine from the depot over this period. Unlike Dr Nasrallah, we found no wide fluctuations in the plasma fluphenazine level beyond 24 hours post-injection, so that when immediately post-injection levels were excluded the average coefficient of variation for an interval between injections was  $\pm 18$  per cent. Plasma fluphenazine levels during this period were always measurable and average levels which ranged from 0.7 to 16.8 ng/ml were dose-related ( $r = 0.84$ ,  $P < 0.001$ ). Prolactin was also measured in these samples (unpublished data). During the period of stable fluphenazine levels, plasma prolactin was generally elevated beyond the upper limit of the normal range for untreated

subjects. Immediately post-injection a further transient increase was found in some cases. Our prolactin results are essentially similar to those of Nasrallah *et al* (1978) who, incidentally, found elevated prolactin levels in samples in which he was unable to detect fluphenazine.

Our findings indicate that during established treatment with fluphenazine decanoate, plasma concentrations of the drug are stable for the majority of the period between injections and in most cases are sufficient to cause measurable dopaminergic blockade. Fluctuations in plasma fluphenazine levels wide enough to produce alterations in dopaminergic blockade occur only within 24 hours of an injection. Therefore, their frequency is determined by the length of the interval between injections. We are currently investigating the possible clinical significance of these fluctuations.

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#### References

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- WILES, D. H. & FRANKLIN, M. (1978) Radioimmunoassay for fluphenazine in human plasma. *British Journal of Clinical Pharmacology*, **5**, 265–8.
- & GELDER, M. G. (1979) Plasma fluphenazine levels by radioimmunoassay in schizophrenic patients treated with depot injections of fluphenazine decanoate. *British Journal of Clinical Pharmacology* (accepted for publication).

#### CONVERSATIONS WITH SCHIZOPHRENICS

DEAR SIR,

Abrahamson and Brenner observe in their patients and in your columns (*Journal*, June 1979, **134**, 648–9) that deterioration occurs early in the course of a chronic schizophrenic illness which they say remains stable thereafter without further progressive deterioration. They therefore wish to correct the traditional view of progressive deterioration throughout the long course of the illness, a view which they claim to detect in my paper (*Journal*, February 1979, **134**, 187–94).

Without adequate longitudinal observation I remain uncertain. The longest I can claim to have known any chronic schizophrenic patients is only seventeen years and they number only six. It is true that I have seen no evidence of further deterioration

in that time under the conditions that I described. However those conditions were specifically designed to prevent further deterioration and perhaps that was why there apparently was none. The same would apply to the patients at Goodmayes.

It may be for all I know that under more natural conditions chronic schizophrenia does follow a progressive downward course as our professional ancestors believed and said. (By more natural conditions I particularly mean absence of adequate drug treatment, absence of the persistent stimulation contained in any rehabilitation regime and exposure

to family tension). It may be for all I know that severely disabled patients undergoing less than perfect community care are closer to living under natural conditions as defined above than are similar patients in modern hospital care.

It may be that Abrahamson and Brenner have put us in their debt by making an important observation but I think several questions need to be answered before we can be sure.

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## Some Books Received

- Massachusetts General Hospital: Handbook of General Psychiatry.** Edited by THOMAS P. HACKETT and NED H. CASSEM. London: YB: *Medical Publishers*. £9.50.
- Management of Schizophrenia: Biological and Sociological Aspects.** Edited by H. M. VAN PRAAG. Assen, The Netherlands: *Royal Vangorcum*. Dfl 21.50.
- Social Interaction Analysis: Methodological Issues.** Edited by DIETRICH LEHMANN and ENOCH CALLAWAY. American University Publishers Group: London. £12.25.
- Human Evoked Potentials: Applications and Problems.** Edited by DIETRICH LEHMANN and ENOCH CALLAWAY. New York: *Plenum*. \$39.50.
- The King's Fund Directory of Organisations for Patients and Disabled People.** Compiled by KATHY SAYER. London: *King Edward's Hospital Fund for London*. £5.00.
- Children's Learning and Attention Problems.** By MARCEL KINSBOURNE and PAULA J. CAPLAN. Boston: *Little, Brown*. \$15.00.
- Beyond Grief: Studies in Crisis Intervention.** By ERICH LINDEMANN. New York: *Jason Aronson*. \$22.50.
- Step-Families: A Guide to Working with Step-parents and Step-Children.** By EMILY B. VISHNER and JOHN S. VISHNER. New York: *Brunner/Mazel*. \$15.00.
- Sex, Hormones and Behaviour.** Ciba Foundation Symposium 62 (new series). Amsterdam: *Excerpta Medica*. \$41.00, Dfl 84.00.
- Therapeutic Hypnosis.** By MICHAEL MILLER. New York: *Human Sciences Press*. \$18.95.
- Homosexuality in Perspective.** By WILLIAM H. MASTERS and VIRGINIA E. JOHNSON. Beckenham, Kent: *Little, Brown*. £9.75.
- Spouse Abuse: A Selected Bibliography.** Compiled by CAROLYN JOHNSON, JOHN FERRY, and MARJORIE KRAVITZ. National Institute of Law Enforcement and Criminal Justice, Rockville, Maryland. Free of charge.
- Annals of Systems Research. Volume 7.** Edited by B. VAN ROOTSELAAR and H. KOPPELAAR. Netherlands Society for Systems Research. Dfl 40.50.
- Depression.** By PAUL HAUCK. London: *Sheldon Press*. £1.95.
- Origin, Prevention and Treatment of Affective Disorders.** Edited by M. SCHOU and E. STRÖMGREN. London: *Academic Press*. £9.00.
- Uncommon Psychiatric Syndromes. Second Edition.** By M. DAVID ENOCH and W. H. TRETOWAN. Bristol: *John Wright*. £9.00.
- Dyslexia: An Appraisal of Current Knowledge.** Edited by ARTHUR L. BENTON and DAVID PEARL. *Oxford University Press*. £15.00.
- Alcohol and Traffic Safety: Proceedings of the First Conference on Alcohol-Highway Safety Programs in the Commonwealth of Pennsylvania.** Philadelphia: *International Alcohol and Mental Health Associates Inc*. No price stated. Edited by PASCAL SCOLES and ERIC W. FINE.
- Medical Textbook Review. Third Edition.** Reviewers: VICTOR DANIELS and STEVEN WHITE. Cambridge: *Medical Textbook Review*. £1.00.
- The Broken Taboo: Sex in the Family.** By RITA and BLAIR JUSTICE. New York: *Human Sciences Press*. \$10.95.
- "So the Witch Won't Eat Me" Fantasy and the Child's Fear of Infanticide.** London: *Burnett Books*. £5.50.