

Effects of Chlorpromazine and Fluphenazine on some Schizophrenic Forms of Behaviour

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Chlorpromazine (Ch) and fluphenazine (Fl) are among the best established of the psychopharmacological drugs whose effects have been confirmed in both acute and chronic forms of schizophrenic psychosis. The powerful effects of these drugs on schizophrenic diseases are generally recognized, but there is disagreement as to which forms of phenomenology and schizophrenic disease are most affected. We were therefore particularly interested in examining the different effects of Ch and Fl on some forms of psychopathological behaviour in schizophrenia.

We formed two groups each of 60 female patients, allocating them in chronological order of their admission to hospital. Whatever their phenomenology, the patients in one group were treated with Ch in doses of 250-550 mg. and the patients in the other group with Fl in doses of 6-9 mg. Every patient underwent clinical and laboratory examination and was individually evaluated, both before the administration of drugs and after 2-3 months of treatment, by means of an 'Observation Scale' with the following ten variables: Integration of personality; basic trends*; reduction of will; negativism; autism; pseudo-hallucinations; verbal hallucinations; ideas of reference†; reduced affect; increased affect.

Each group was divided into four sub-groups: (1) 'nuclear' forms (simplex and hebephrenia); (2) 'paranoid' schizophrenia; (3) schizo-affective and 'periodic' schizophrenia; and (4) 'latent' schizophrenia.

Most of the patients were between 21 and 30 years of age, and the average duration of disease was 2-5 years. In the three years from 1967 two groups of 60 patients each were studied.

* The basic strata of purposeful activities; the internal tendency to set and perform tasks.

† The pathological interpretation of thought and its link with the personality and with real or imaginary events.

RESULTS

In the first evaluation, before the application of drugs, no significant differences in pathological intensity were found between the two main groups and between the eight sub-groups (Fig. 1). The shaded areas represent the total scores for psychopathological symptoms, i.e. Ch 1034, Fl 930 ($t=0.5$).

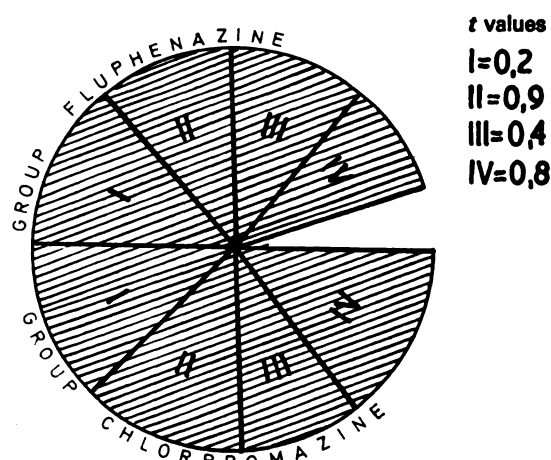


FIG. 1.—The intensity of the psychopathological symptoms in the sub-groups.

After treatment, some of the phenomenological variables dropped significantly in intensity in each of the two main groups, as shown in Figure 2. It will be seen, however, that the drop in the Fl group is more significant than that in the Ch group.

If these results are examined in relation to some of the variables on the 'Observation Scale' it will be seen (Fig. 3) that Fl had the greater effect on 'ideas of reference', 'integration' and 'reduced will', while there was very little difference in the effects on 'pseudo-hallucination' and 'autism'. For 'negativism',

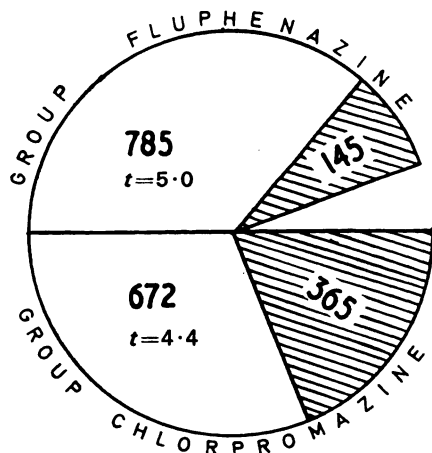


FIG. 2.—The decreased and retained intensity of the psycho-pathological symptoms in Fl and Ch groups.

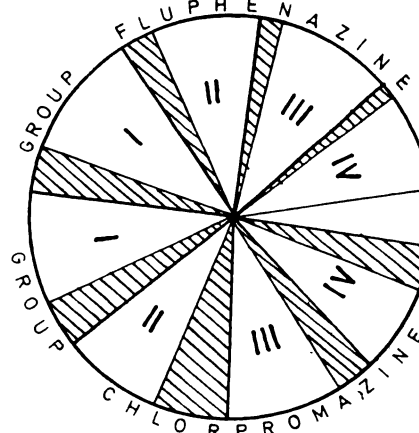


FIG. 4.—The intensity (decreased and retained) of the psychopathological symptoms in the sub-groups.

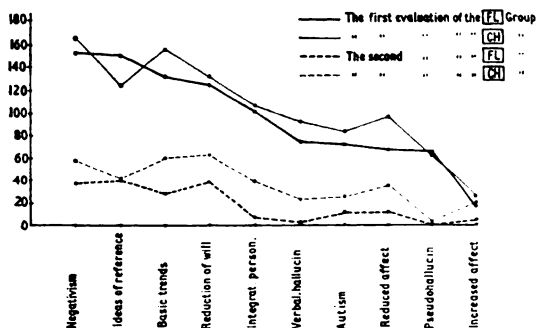


FIG. 3.—The intensity of the psychopathological symptoms.

'basic trends' and 'verbal hallucination' also the differences were slight, but to the advantage of Fl.

Comparing the effects of the two drugs on the variables in the sub-groups, no significant drop was found in the two so-called 'nuclear' sub-groups (1). There was also a slight difference between Fl and Ch in sub-groups 3. Evident differences existed in the 'paranoid' sub-groups (2) and also in the 'latent form' sub-groups (4) (Fig. 4).

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CONCLUSION

Our results demonstrate that after three months' treatment with Ch and Fl a significant reduction of psychopathological content occurred, the effects of Fl being generally greater. However, analysis of each item shows that Fl was more powerful only in cases of 'integration', 'ideas of reference' and 'reduced will'. The differences were not significant in other forms of psychopathological behaviour.

There appears to be no significant differences regarding other forms of schizophrenic psychosis, though it could be said that Ch is somewhat better for 'nuclear' types of 'schizo-affective' forms of schizophrenia, while Fl is much better for 'paranoid' and 'latent' forms.

From these investigations it seems that it is the nature of the disease and its severity that determine the degree of lessening of symptoms, though it should be added that the drugs applied may also be important. To sum up, Fl is the more powerful schizophrenolytic, but not for all forms of schizophrenic psychosis.