

Premorbid Personality of Parkinson Patients

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With 4 Figures

Summary

In a preliminary study 28 patients with idiopathic Parkinson's disease (14 males, 14 females; mean age 67 years, mean disease duration 9 years) were tested with the GIESSEN-TEST (GT) personality inventory in an attempt to define distinctive premorbid personality features of Parkinson's disease. Patients and close relatives were asked to fill out the test questionnaires with a retrospective judgement of healthy times; at the same time patients and relatives were interviewed for premorbid habits and personality traits of the patients. The results obtained suggest that parkinsonian patients are of an introverted and anancastic premorbid personality type. In the GIESSEN-TEST (GT) marked trends toward "overcontrol"; "depressiveness", "positive social resonance", and "social impotency" were observed. The results are discussed and related to findings of distinctive premorbid smoking and drinking habits of parkinsonian patients.

Key words: Parkinson's disease, mental changes, premorbid personality, GIESSEN-TEST.

Introduction

James Parkinson's original definition of the disease now bearing his name has experienced an important modification by following generations of neurologists in only one point, namely when he stated "the senses and intellects being uninjured" (*Parkinson*, 1817). Especially in the past 20 years, there has been growing awareness that mental changes like depression and intellectual impairment are part of the disease process, at least in a certain number of patients (*Pollock*

and Hornabrook, 1966; Warburton, 1967; Mindham, 1970; Celesia and Wanamaker, 1972; Loranger *et al.*, 1972; Martilla and Rinne, 1976; Mayeux *et al.*, 1981). The question of characteristic premorbid personality features of Parkinson's disease patients has received comparatively little attention. It was mainly from psychoanalytically oriented psychiatrists in the first half of this century that the proposition was put forward that the premorbid personality of parkinsonian patients had certain characteristic features and that psychological factors dependant on those personality features might be important for the development of the disease. In general these authors described parkinsonian patients as premorbidly being externally calm and introverted while suppressing aggressive tendencies and hardly expressing their emotions. This constellation was termed "masked personality" by Sands (1942). Furthermore parkinsonian patients were claimed to readily subdue their own personal desires under social standards, to strive for order, punctuality and cleanness and to exhibit trends towards perfectionism, conservatism, and rigid moral standards (Cohen-Booth, 1935; Mitscherlich, 1960; Korten and Ketterings, 1972). Using questionnaires and psychometric testing, Diller and Riklan (1956) and Prichard *et al.* (1951) on the other hand found rather heterogenous premorbid personality features in parkinsonian patients. In recent years the question of a characteristic premorbid parkinsonian personality has practically disappeared from the literature, despite several reports on significant differences in premorbid smoking and drinking habits between Parkinson's disease patients and controls (Bauman *et al.*, 1979; Martilla and Rinne, 1980; Godwin-Austen *et al.*, 1982). But also the finding of such differences in premorbid smoking behaviour between parkinsonian patients and controls is discussed more in terms of smokers being at lower risk to develop Parkinsonism than in terms of special premorbid behaviour of parkinsonian patients. However, recent support for the possible existence of a distinctive premorbid parkinsonian personality has come from a twin study of Parkinson's disease, where the parkinsonian twins were reportedly less adventurous, outgoing or decisive and more shy and unhappy in their premorbid phase when compared with their co-twins (Duvoisin *et al.*, 1981; Ward *et al.*, 1982).

Material and Methods

In an attempt to test the hypothesis of a distinctive premorbid parkinsonian personality we conducted a preliminary study in 28 patients with idiopathic Parkinson syndrome employing patient and family

Table 1. *Patient collective. A subdivision according to predominant motor symptoms was made into "RAT-Type" meaning equivalent expression of Rigidity, Akinesia and Tremor, "RA-Type" meaning rigid-akinetic type with predominance of Rigidity and Akinesia and "T-Type" meaning tremor-dominant type*

Patient group (N=28)	
Diagnosis	Idiopathic Parkinson syndrome
Male:female	14:14
Mean age	67 years
Mean-disease duration	9 years
RAT-Type	16
RA-Type	7
T-Type	5
Depression	10

interviews and a psychometric personality inventory. The clinical data of the patient group are summarized in Table 1. The personality test employed was the GIESSEN-TEST (GT), which is designed for the measurement of personality traits by both self and foreign assessment using a total of 40 items organized in six standard scales for the features "social resonance", "dominance", "control", "basic mood", "perviousness", and "social potency". Each item is presented both as the positive and negative variation of a certain personality feature with possible scores from -3 to +3. The details of the test are described by *Beckmann and Richter (1972)*, where sex and age specific standard score values are given for large control groups. In the present study, patients and one closely related person (spouses, siblings, etc.) were instructed to fill out the test in a retrospective manner referring each item to "former times before the disease had started".

Results

From patient and family interviews certain distinctive premorbid personality traits could be identified by their frequent concordant appearance both in the patients' self description and relatives' interviews in the majority of cases. They can be described in terms of introversion and anancastic habits. In the patients' premorbid private and professional life there was often a tendency towards perfect fulfilment of tasks, towards order and punctuality while expecting the same from the persons of their surroundings. Disturbances of regularity would seriously irritate the patients both in their premorbid state as well as after outbreak of the disease. In their professional sphere, patients had usually been well appreciated for their reliability and high feelings of responsibility while at the

Table 2. Premorbid personality features of Parkinson patients evolving from patient and family interviews

Premorbid personality traits of Parkinson patients

Individual sphere
 Introversion
 Anancastic habits
 (regularity, punctuality, accuracy, lack of flexibility)

Professional sphere
 Reliability
 Responsibility
 Exactness
 Not striving for reward

Social relations
 Subordination
 Respect for hierarchy
 Loyalty
 Adherence
 Rigid moral standards

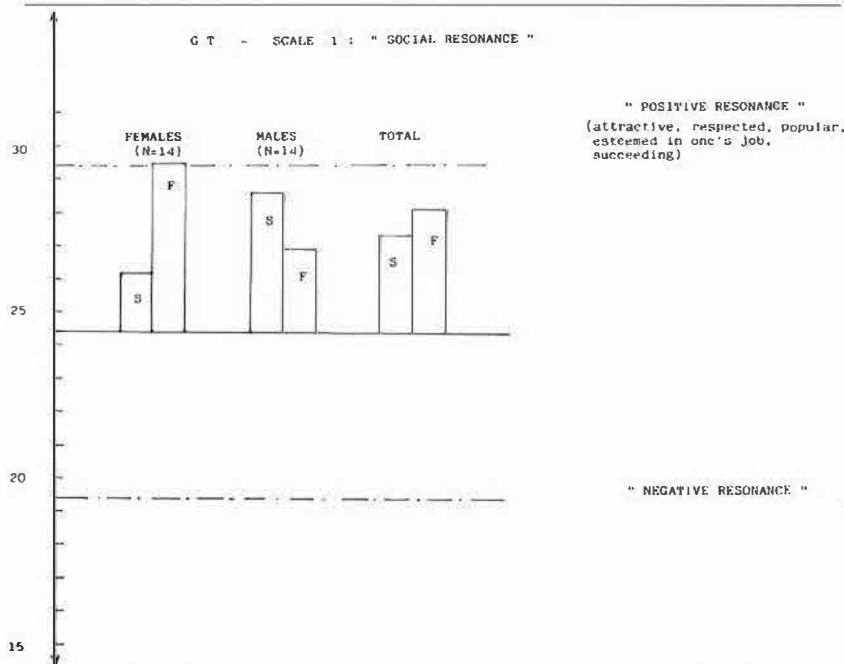


Fig. 1. Personality profile of Patient sample in GT-scale 1. The score values of the scale are depicted on the vertical axis. In Fig. 1-4 the closed horizontal line denotes the mean score value of an age matched standard population (N = 718), the horizontal interrupted lines denote the S₁₀-values after T-transformation of the standard scales. S self assessment, F foreign assessment

same time usually not striving for progress in their careers and superior positions. Patients were likely to have exhibited trends towards subordination, respect for hierarchy and social norms. In their emotional sphere, patients reportedly had tended to be depressive and not outgoing. The premorbid parkinsonian personality features evolving from patient and family interviews are summarized in Table 2.

In the GT, remarkable trends could be observed in four of the six standard scales. In GT-scale 2 for "dominance", the patient group as a whole showed a slight but insignificant tendency towards a "pliable" personality type defined as being rarely involved in arguments, adaptable, subordinating oneself and cooperative. In GT-scale 5 for "perviousness", there were also only insignificant deviations from the mean score of the age correlated standard population of 718 healthy subjects ("pervious" vs. "retentive" in this scale is defined as "open minded, close to others, trusting and freely expressing desire for love" vs. "shy, not freely expressing one's feelings, retaining desire for love, suspicious").

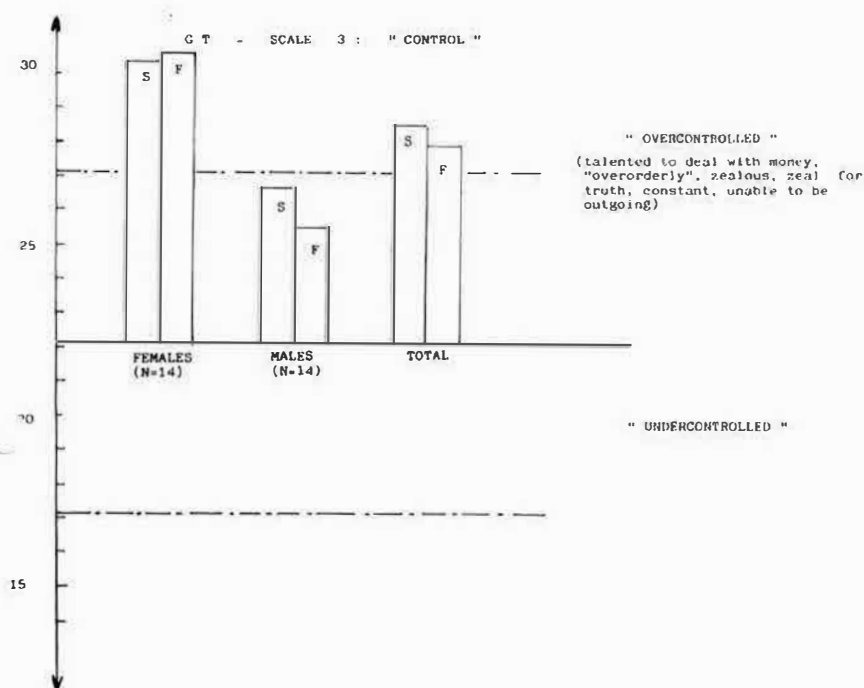


Fig. 2. Personality profile of patient sample in GT-scale 3. Vertical and horizontal lines as in Fig. 1 (S self assessment; F foreign assessment)

A marked tendency towards positive social resonance, however, was evident in GT-scale 1 ("social resonance") especially for the female patients in foreign assessment but also for the total group in both self and foreign assessment (Fig. 1). This tendency might reflect the positive social resonance towards some of the premorbid parkinsonian personality features evolving from our interview data, especially as far as the professional sphere and social relations are concerned (see Table 2).

A very clear deviation towards an overcontrolled personality type appeared in GT-scale 3 ("control"), more significant for the female than for the male patients. Still the total patient collective appeared as having been over-orderly, talented at dealing with money, zealous, unable to be outgoing both in self and foreign assessment (Fig. 2).

In GT-scale for "basic mood", a significant deviation towards depression was evident in the female group, not as much in the male patients (Fig. 3). This finding would support the presence of depression also in the premorbid personality of parkinsonian patients.

A trend towards a socially impotent premorbid personality defined as "retiring, shy in sexual contacts, lack of competition, lack of phantasy, little tendencies for devotion" became visible in the scale for social potency (Fig. 4). This tendency was much more marked in foreign than in self assessment, which may mean that patients are inclined to underestimate their defective social relations.

Discussion

Our preliminary results obtained in the first part of an ongoing study may well fit into the concept of a distinct premorbid personality type of Parkinson's disease patients. The descriptions given in the patient and family interviews are in accordance with what has been reported by *Duvoisin et al.* (1981) and *Ward et al.* (1982) in a twin study of Parkinson's disease and the personality profile summarized from our interviews (Table 2) very closely resembles the one described by *Korten and Ketterings* (1972). In the GT-personality inventory, the most striking deviations from the mean score of a standard population were found in scales 3 and 4 for "control" and

Fig. 3. Personality profile of patient sample in GT-scale 4. Vertical and horizontal lines as in Fig. 1 (S self assessment; F foreign assessment)

Fig. 4. Personality profile of patient sample in GT-scale 6. Vertical and horizontal lines as in Fig. 1 (S self assessment; F foreign assessment)

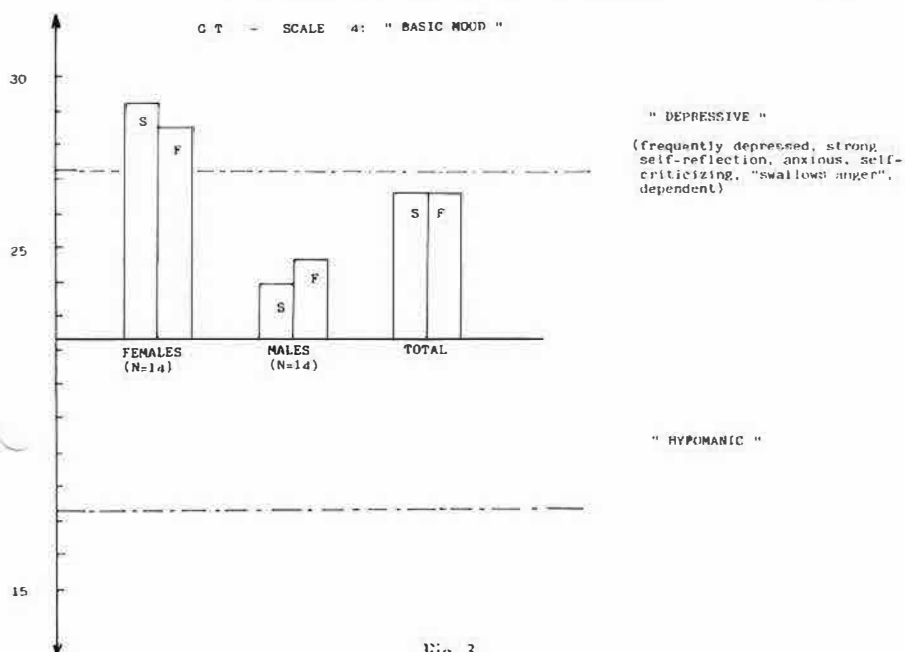


Fig. 3

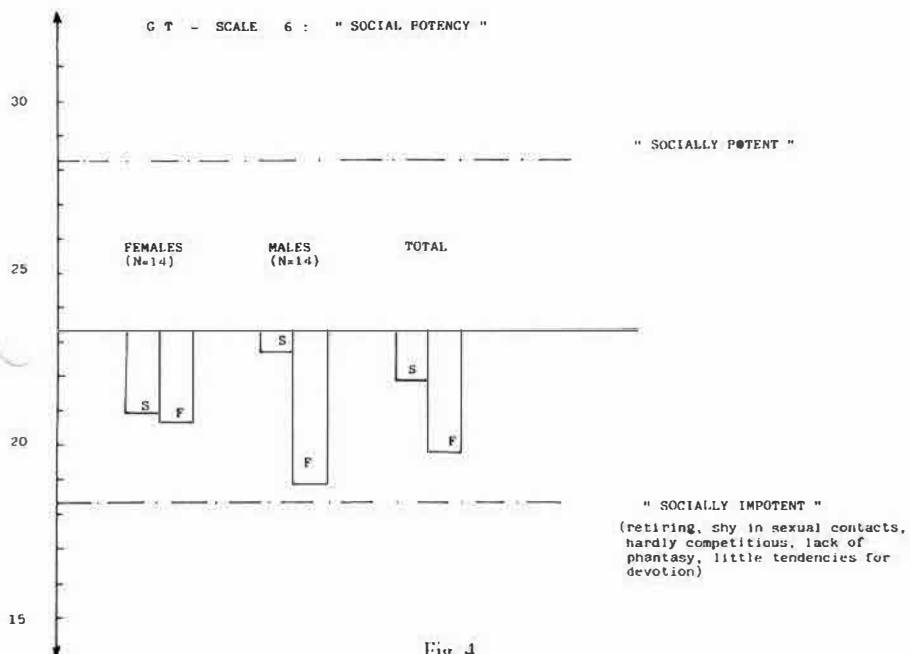


Fig. 4

“basic mood”. Parkinson patients appeared as having premorbidly been overcontrolled and depressive both in self and foreign assessment. Some reservations may be made about the validity of retrospective self assessment especially as far as basic mood is concerned, since one might expect those parkinson patients being depressive at the time of the study (see Table 1) to retrospectively assess their basic mood also in the direction of depression. This should, however, not in the same manner apply to foreign assessment, which showed the same trend. In general, if the personality deviations from a standard population observed in the GT in our patient group were mainly due to same artifact dependant on retrospective assessment, it would be hard to explain why the deviations observed are in such good accordance with earlier descriptions of the premorbid parkinsonian personality. Since all attempts to assess the premorbid personality of Parkinson patients inevitably must be done retrospectively, the possibility cannot be excluded that our findings as well as all previous reports only describe the personality features of parkinson patients as patients and that the corresponding premorbid personalities might have been quite diverse. Such a possibility, however, would leave us with the phenomenon that the disease process of Parkinsonism also produces a distinctive personality type. Probably the strongest argument for the existence of characteristic premorbid personality features in parkinsonian patients can presently be drawn from the existence of distinctive smoking and drinking habits of these patients in their premorbid phase. Parkinson patients premorbidly tend to be non-smokers (*Bauman et al.*, 1979; *Martilla and Rinne*, 1980; *Godwin-Austen et al.*, 1982) and teetotallers (*Pollock and Hornabrook*, 1966). If one takes the statement of the Royal College of Physicians’ report on “Smoking or Health” (Royal College of Physicians, 1977) saying that “compared with non-smokers, adult smokers tend to be impulsive, arousal seeking, danger-loving, risk-takers and to be more belligerent towards authority . . . Many of these characteristics contribute to the personality trait of extraversion which has been found consistently to be associated with smoking”—then it is intriguing to interpret the premorbid smoking habits of parkinsonian patients in terms of an introverted premorbid personality type—rather than to assume a protective effect of smoking against the development of Parkinson’s disease.

Being aware that the matter is far from proven, we feel our results and a variety of data in the literature are in favour of a distinctive premorbid parkinsonian personality and further studies with more reliable data on parkinsonian premorbidity are desirable.

Acknowledgements

The authors wish to thank Mrs. I. Kryspin-Exner, MD, University Clinic for Psychiatry, Innsbruck, for critically discussing problems of personality assessment and Ms. M. Kössler for assistance in preparing the manuscript.

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