

CANCER AND SUICIDE

DEAR SIR,

The purpose of this letter is to criticize the findings reported in Professor Whitlock's paper (*Journal*, March 1978, 132, 269-74), in which he reported an excess of cancers among suicides and concluded that cancer was a factor in suicide.

He reports malignant disease to be over-represented in a consecutive sample of suicides from Brisbane, Australia. Seventeen cancers were found in 237 cases aged over 50 years. This proportion (6.2 per cent) was compared with the proportion of cancers found in 273 age and sex matched cases of violent death other than suicide, mainly road traffic accidents. The proportion of cancers in the accidents was 0.7 per cent (2/273), significantly fewer than among the suicides.

Whitlock's conclusion that the finding demonstrates cancer to be a factor in suicide is open to criticism because of the method he used. The most serious criticism is the assumption that the prevalence of cancer in road traffic accident deaths is equivalent to that in a random population sample, which is the appropriate comparison group for a study of this kind. Clearly, road traffic accidents cannot be, since serious malignant disease causes people to be in bed at home or in hospital, and decreases mobility, reducing the risk of a violent death. Samples of road traffic accident deaths are bound to contain fewer cancer cases.

Further, the study was retrospective, based on examining postmortem records, and there is no guarantee that the pathologist searched as closely for cancers in the comparison group as in the suicides. To overcome error arising from this source, I compared the proportions of cancers which had been diagnosed before death in the two groups, as given by Whitlock in his paper. Seven cancers (2.6 per cent) were known among the suicides and one (0.4 per cent) in the accident group; a non significant difference at the 5 per cent level (Fisher Test: $p = 0.07$).

There are other criticisms. Whitlock chose to compare groups aged 50 and over, but gives no valid justification for omitting the under 50s. Since cancer is the second or third commonest cause of death among young people they ought to have been included.

The age structure of the suicide group is given, but not that of the accident group—a datum which is usually required to convince a reader that the two groups were equivalent for age. The incidence of cancer in an older suicide group will inevitably be greater than that in a younger comparison group.

The paper is important because of its finding, and may be widely quoted. I believe the criticisms I have

advanced show that we cannot conclude from Whitlock's study that cancer is in excess among the cases of suicide he has studied.

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Reference

WHITLOCK, F. A. (1978) Suicide, cancer and depression. *British Journal of Psychiatry*, 132, 269-74.

TARDIVE DYSKINESIA OR SCHIZOPHRENIC ABNORMAL MOVEMENTS?

DEAR SIR,

There is still a great controversy concerning the pathogenesis, diagnosis and reversibility of abnormal movements observed in schizophrenic patients. Kraepelin, 1907 (3) described such movements associated with schizophrenia long before the use of neuroleptics. Yarden and DiScipio (5) reported in 1971 a group of young schizophrenics with abnormal motility before exposure to any neuroleptics. They found in this group choreiform movements, athetoid movements and dysarthric speech. Cole, 1975 (1) thought it impossible to differentiate accurately the movements of tardive dyskinesia from movements associated with chronic schizophrenia.

The central question remains—it is indeed an important one because of the continuing widespread use of neuroleptics—whether certain abnormal movements in schizophrenics are due to the disease process itself or due to the use of neuroleptics leading to tardive dyskinesia.

The present author observed two chronic schizophrenics in the Kings County Psychiatric Clinic, who exhibited abnormal movements over a short period of time during which they took neuroleptics. These movements lasted in the first patient two weeks and in the second patient two months. The first patient showed chewing movements and smacking of the lips, while the second had chewing movements, puffing of the cheeks, writhing movements of neck and head and raising movements of the shoulders.

Although these abnormal movements resembled very much the movements of tardive dyskinesia, the author came to the conclusion that they represented abnormal movements of schizophrenia for the following reasons:

- (1) These abnormal movements appeared in both patients following severe stresses—in one patient a few days after a traumatic move to a new neighbourhood, in the second patient two days after she was robbed and raped.

- (2) In both patients the abnormal movements were associated with severe exacerbation of their psychiatric symptoms.
- (3) Both patients continued to take neuroleptic drugs after the beginning of the abnormal movements—one patient continued to take the same medication in the same amount, the second patient began taking another neuroleptic in dosage equivalent to the previous drug.
- (4) In both patients, as their mental status improved, the abnormal movements subsided.
- (5) After a drug free period—in one patient 14 days and in the second patient 7 days (the medication had to be reinstated after 7 days as she became severely psychotic) no abnormal movements were noticed.

We discontinued the neuroleptics to provide additional evidence that the abnormal movements were not due to the drugs, because it has been reported by Crane, 1973 (2) and Roxburgh, 1970 (4) that the syndrome can become more apparent after discontinuation of neuroleptics.

- (6) Both patients were followed for a period of over two years and no reappearance of abnormal movements was noted, although they continued to take neuroleptics.

These two patients demonstrate the importance of differentiating between the diagnosis of tardive dyskinesia and the abnormal movements of schizophrenia. Careful and prolonged observations are necessary to make a correct diagnosis.

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- YARDEN, P. E. & DiSCIPPIO, W. J. (1971) Abnormal movements and prognosis in schizophrenia. *American Journal of Psychiatry*, 128, 317-23.

Table for letter from Drs. Paty and Benezech (p. 285)

	Controls (11 cases)	47, XYY (7 cases)	47, XXY (4 cases)	
V { I (III-IV)	11.08 ± 2.50 μV‡	12.93 ± 2.05 μV	14.45 ± 3.97 μV	ns
E { II (V-VI)	7.17 ± 3.43 μV	12.70 ± 5.69 μV	6.93 ± 3.94 μV	*
R { A D (A-D)	5.69 ± 5.21 μV	11.90 ± 4.61 μV	7.28 ± 7.03 μV	*
A { I (N1-P2)	16.35 ± 5.47 μV	10.40 ± 1.68 μV	11.25 ± 3.25 μV	†
E { II (P2-N2)	10.43 ± 5.43 μV	9.67 ± 3.71 μV	5.78 ± 3.45 μV	*
S { I (P0-N1)	3.09 ± 0.67 μV	4.21 ± 1.38 μV	4.63 ± 2.25 μV	ns
R { II (P3-N3)	6.44 ± 3.43 μV	11.14 ± 3.11 μV	8.63 ± 1.44 μV	†
C { Amplitude	16.30 ± 4.99 μV	14.20 ± 6.57 μV	12.40 ± 3.59 μV	ns
N { Late CNV	1 case	3 cases	2 cases	

ER Amplitudes—CNV: Amplitude and waveform

ns Non significant

* Differences between 47, XYY and controls; and between 47 XYY and 47, XXY (p < 0.05)

† Significant differences only between 47, XYY and controls (p < 0.05)

‡ Mean values ± SD