Two other anticholinergic anti-Parkinson agents are currently available in Norway, biperiden and benztropine (benzhexol and procyclidine were withdrawn from the market in 1995 and 1996, respectively). The current state of knowledge concerning these other drugs is abyssmal; for instance, we have not encountered comprehensive pharmacokinetic studies of any of these compounds. It is, however, notable that there are very few case reports of deaths in association with their use. No deaths, but two intoxications which required hospitalisation, have been described after intake of biperiden (Hewer & Biedert, 1988). A total of five deaths have been reported in the literature in association with benztropine ingestion (Särnquist & Larson, 1973; del Villar & Liddy, 1976; Wade & Ellenor, 1980; Catterson & Martin, 1994). We have not found any reports of acute deaths caused by either benzhexol or procyclidine.

The data presently available show that benztropine is associated with a comparably high risk of acute death from overdose. In general, the use of anticholinergic agents to counter side-effects from antipsychotics should be discouraged, but if indicated, several other compounds may be used more safely. The consequences of this should be fairly obvious, but the continuum of high death rates from orphenadrine poisonings seems to demonstrate how difficult it is to change an ill-advised therapeutic tradition.


Ellenhorn, M. J. (1997) Medical Toxicology. Diagnosis and Treatment of Human Poisoning Baltimore, MD: Williams & Wilkins.


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The beginning and end of psychiatric pathways

Sir: The article by Lincoln et al (1998) made an interesting reading. The understanding of contacts that people make prior to consulting a psychiatrist is a vital factor in planning to reduce the delays in seeking treatment. Based on the results of a multicentre study conducted in India (further
details available from the author upon request) with a similar background, we would like to share our experiences.

Elucidating responses on various aspects of the pathways to care may lead to responder bias in the case of patients who are psychotically unstable or with a history of primary memory disorders like amnesia and dementia. Moreover, crossing-checking statements from the accompanying key informants or relatives would have enhanced the accuracy of the collected data.

Our study consisted of 396 subjects selected from five geographically and culturally different regions of India. The diagnostic make-up of our sample revealed that a majority of people suffering from either schizophrenia (53.7%) or depression (53.5%) had reached a psychiatrist within a year of onset of symptoms, whereas the group suffering from either acute transient psychosis, substance-related psychosis or other unspecified psychosis reached a psychiatrist much earlier (more than 50% within one month). Although it is difficult to explain this variation, it could be due to the relatively benign prodromal phases of depression and schizophrenia compared with the other group. So far as the first care-givers are concerned, we found that psychiatrists were consulted in 33.7% of the cases which is much higher than that reported by Lincoln et al (16.1%).

Finally, it is not clear where exactly the pathways to psychiatric care begin. Do they begin with the family, friends or the patient himself or herself? A similar question remains regarding its end. Does it really end with the psychiatrist? In our study we found that 1–2% of study subjects in different centres consulted further care-givers even after seeing a psychiatrist. Hence, we hypothesise that pathways to psychiatric care are not static events or strategies, but an ongoing process in search of an ideal care-giver. It is a process dependant on a wide range of biopsychosocial factors which need to be understood individually.


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