bitemporal generalised theta and delta components in runs lasting up to 30 seconds. When seen at home two weeks later she was symptom-free, and had no night cramps. Further clinical and EEG follow-up is planned.

In this case, quinine had been taken in a standard dose for over a year, in contrast to Jerram's report, where the patient took a homeopathic quinine preparation. Quinine and chloroquine are older antimalarial drugs and share a similar mode of action (Goodman *et al*, 1985). Whereas psychotic reactions to chloroquine are known (Dukes, 1984), a literature search failed to reveal any other reports of psychoses with quinine. Jerram mentions reports on psychosis with quinidine, an optical isomer of quinine; but it is known that isomeric forms of the same drug can have different properties. I endorse Jerram's view that quinine should be added to the list of drugs which can induce psychoses.

I must stress here the importance of critically reviewing a patient's current medication. It is also important that this is conveyed to the general practitioner. It is often seen, especially in the elderly, that after a dosage regimen is rationalised during hospital stay, the patient, on discharge, ends up with all the previous medications.

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Psychosurgery for Bipolar Affective Disorder

SIR: Two recent publications in the *Journal* (Lovett & Shaw, 1987; Poynton *et al*, 1988) reported on a combined total of 18 patients treated for resistant bipolar affective illness with psychosurgery. In the last 15 years, we have similarly treated 11 patients with bipolar illness at the Neuropsychiatric Institute, Sydney.

Nine patients were female, the mean age at the time of surgery was 45.5 years, and they had been ill for an average of 13.8 years. All patients underwent a bilateral orbitomedial procedure, nine by stereotaxy and the two earliest ones by open operation. The mean follow-up period was 5.0 years (range 1–9 years).

Using the global outcome criteria described by Goktepe *et al* (1975), six patients showed good improvement (grade II) at 3–6 months after surgery, two were slightly but significantly better (grade III), and three were largely unchanged. At the time of last contact, five had maintained grade II improvement, one was grade III, and four were unchanged (grade IV). One patient was lost to long-term follow-up.

When the effect on mania is considered, of the five patients who had had multiple manic and depressive episodes over many years requiring frequent admissions prior to surgery, three had only minor swings afterward and were well-controlled on medication while two were unchanged. One patient with a rapidly-cycling illness had an attenuation of the intensity of her illness, but still needed regular psychiatric treatment with occasional admissions. One patient had three episodes of mania in the three years prior to surgery, and only one episode in the following four years. The four remaining patients had too few hypomanic episodes before psychosurgery for us to comment on any antimanic effect. When improvement occurred in the patients with multiple episodes, it was evident for both mania and depression.

Our experience, therefore, supports the conclusion of Poynton *et al* (1988) that although some patients may show good improvement, the overall results for bipolar illness are less favourable than for unipolar illness. Manic swings do seem to be modified, and in our cases the anti-manic effect was as great as the anti-depressive one, but no greater, unlike the effect in cases reported by Lovett & Shaw (1987) and Poynton *et al* (1988). We have not observed hypomanic swings following psychosurgery on unipolar patients.

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