From these three reports, we conclude:
1 Intravenous immune globulin can induce aseptic meningitis in children as well as in adults: the strong temporal association (on day three in our patient and in Watson's patients) and the repetitive occurrence in the same patient (on two occasions in Kato's patient and in our patient) are both strong arguments in favour of this. It should no longer be a hypothesis.
2 Several preparations of intravenous immune globulin can induce aseptic meningitis. Up till now it has been reported with four different preparations: with immunoglobulin prepared with polyethylene glycol and with a sulphonated preparation,[3] with a formulation prepared by cold ethanol fractionation (Sandoglobulin)[2] and with a low PH formulation prepared with ethylene glycol (Intragam).[1]
3 As with many other iatrogenic diseases, the aseptic meningitis in itself is rather benign and resolves rapidly with cessation of the therapy. But not recognising this complication as such might result in potentially dangerous and/or unnecessary explorations (lumber puncture in a thrombocytopenic patient;[4] CT scan)

The possible occurrence of aseptic meningitis following immune globulin infusion should thus be known by all physicians and should be mentioned by the pharmaceutical firms.

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Dr Watson *et al*[1] described two patients who developed aseptic meningitis after high dose intravenous immunoglobulins (IgIV). Both had mild symptoms and recovered completely within 14 and seven days, respectively. We consider it important that this side effect has been noted. It improves detection of future similar effects and places it in the appropriate pathogenetic context. The observations on these two patients, however, do not give any clue about the incidence of this side effect.

In the Dutch Multi Centre Guillain-Barré trial we compared high dose IgIV with plasma-exchange (PE). Based on the main outcome criterion—functional improvement four weeks after randomisation—IgIV was superior to PE.[2 3] As a result of this study IgIV may well be used more often in neurological patients after detailed publication of the results. We would therefore like to report our experiences on the side effects of IgIV.

In 74 patients 0·4 g/kg of IgIV (Gammagard^{R}, Hyland Division, Baxter) was infused during five consecutive days, a total of 370 infusions. These infusions were all performed during the acute phase of the Guillain-Barré syndrome in patients of all ages. During the infusion period patients were scored every other day and questions about complications were included in the datasheets. A treatment form was also filled out, and this included questions about any unusual event during treatment.

Five time-related events occurred during these 370 infusions; blood pressure dropped but did not need any treatment (2), dyspnoea treated with a diuretic (1), temperature increase treated with clemastine (1) and transient macroscopic haematuria (1). The treatment course was not interrupted in any of the cases. The last event may have been coincidental, but the others may have been caused by the IgIV infusions. They were, however, mild and transient. Aseptic meningitis was not observed in any of the patients. We conclude that the incidence of side effects of high dose IgIV is low and that IgIV may be safely applied in neurological patients.

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The brain in schizophrenia

The excellent editorial by Ron and Harvey[1] notes that "to have forgotten that schizophrenia is a brain disease will go down as one of the great aberrations of twentieth century medicine". However, I think it is open to question as to whether schizophrenia can be considered as a brain disease in the same way as established brain diseases such as viral or atrophic disorders of the CNS. There may be more general reservations with the validity of the concept of schizophrenia itself,[2] but I have four specific reservations with calling schizophrenia a brain disease:
1) Unlike most brain diseases, there is as yet no diagnostic pre- or post-mortem biological or other physical marker for schizophrenia.
2) Compared to most brain diseases, there is no predictable pattern of deficit in sensory or motor functions or in "primitive" reflexes.
3) Unlike most brain diseases, psychological or psychosocial variables play a significant part in the aetiology and stability of outcome of many patients with schizophrenia.
4) The relationship between neurobiological features of patients with schizophrenia and the pattern or severity of psychiatric disturbance is much more equivocal than in the case of analagous relationships in brain diseases.

At present I would therefore feel comfortable in calling schizophrenia a brain *dysfunction*, but I do not think there is yet sufficient evidence to call it a brain disease. It is possible that the term disease, if commonly applied to schizophrenia, may in the perception of some clinicians limit the range of viable therapeutic options.

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(^{99m}Tc)-HM-PAO SPECT and dementia in Parkinson's disease

With great interest we read the article from Spampinato *et al*[1] and we would like to comment on some aspects of the article.

We performed single photon emission computed tomography (SPECT) using (^{99m}Tc)-HM-PAO as a tracer in 5 clinically demented and 6 non-demented patients with Parkinson's disease (PD). HM-PAO uptake was measured in the frontal, parietal and temporo-parietal cortex and was expressed as cortical/cerebellar activity ratio. None of our patients had a reduction of HM-PAO uptake of more than 20%, which seems to be in concordance with Spampinato *et al*. In contrast to Spampinato *et al*, however, we found no difference between the demented and non-demented PD patients. We investigated whether there was a relation between SPECT-scan data and neuropsychological tests in our group as a whole (n = 11). Using the Spearman rank correlation test, we found no significant correlations between neuropsychological perfomance and SPECT data on any test.

One of the main problems in our research was the estimation of dementia in PD. Of the 5 patients who fulfilled the criteria for dementia as described in the DSM-III-R, all lacked typical cortical features. All of our patients were able to undergo the neuropsychological tests. In the study by Spampinato *et al*, diagnosis of dementia was based on neuropsychological assessment, according to which the PD patients were divided into two groups of 15 patients. However, five of their patients could not be tested, probably due to severe dementia. It was not stated by the investigators whether their demented PD patients were free from cortical features.

In our opinion, one of the possible explanations for the differences in results is that patients had no cortical dysfunction and therefore no Alzheimer-like pathology. Further elucidation of dementia as seen in PD seems mandatory.

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