had a voracious appetite and indiscriminate eating habits which included paper towels, plants, styrofoam cups, and even faeces. At one point, he ate from a carry-out bag. The patient was no longer his usual assertive self and had become quite docile. He tended to wander about the ward touching objects or people and made inappropriate sexual gestures. On examination, his speech was dysarthric but fluent, and he had difficulty with the comprehension of multiple step commands. He had impaired spatial orientation and difficulty with constructions. The patient could not recognise colours, shapes, or objects by visual presentation; however, he could match the objects visually and name them by touch. He had normal visual acuity and visual fields, mild right hemiparesis, and right sided hyperreflexia. Brain CT showed a single hypolucency in the left frontoparietal area.

The source of his behaviour change was considered to be a combination of post-anoxic and epileptic injury involving both anterior temporal lobes. On the day of his death, the patient had a respiratory arrest after suffocating with surgical tape. He had wandered about the ward picking up whatever he could find and putting it into his mouth. Neuropathological examination disclosed a lesion in the left posterior cerebral artery territory, virtual absence of the left anterior temporal lobe, and atrophy of the right parahippocampal gyrus, hippocampus, and amygdala.

Patient No 2 was a 54 year old man with dementia who developed aggressive food seeking behaviour. He would go from room to room, take food from others' trays, and rapidly eat it. His first symptom of dementia was at the age of 50 when he displayed uncharacteristically poor judgment by exchanging a brand new car for an old one. Over the next four years, he had a progressive deterioration of judgment and memory. In addition, the patient became placid, began manually exploring his surroundings and grabbing at objects, and occasionally exposed himself to others. On examination, he was passive and mute, except for a short phrase responses and echolalia. His memory was impaired, but calculation and construction abilities were preserved. He could visually recognise and name colours and objects. He had normal visual acuity, visual fields, motor testing, and reflexes.

The patient's CT showed disproportion-ate frontal lobe atrophy, and the patient was diagnosed with frontotemporal demyelination complicated by the Klüver-Bucy syndrome. On the day of his death, he was seen to be developing a breathing difficulty after a large meal. A Heinlich manoeuvre was performed, and he vomited a large amount of undigested food. There was massive aspiration of poorly masticated food in the pharynx, and the patient did not respond to resuscitation efforts. Non-confluent temporal lobe examination pronounced pronounced frontal lobe atrophy with Pick cells but no Pick bodies, and milder anterior temporal atrophy.

These two patients illustrate that hyper-oral behaviour can be lethal. Both patients had the Klüver-Bucy syndrome with a tendency to engage in oral exploration of objects and human beings, or an exploratory insatiable appetitive. In this syndrome, the hyperoral behaviour probably results from damage to the amygdala in the anterior temporal lobes.7 Patients with frontotempo-

The aim of the present study was to estimate the prevalence of anxiety disorders in non-demented and demented subjects and to identify some trends in the clinicians' use of the DSM-IV in this elderly population. The partic-

Anxiety disorders in non-demented and demented elderly patients: prevalence and correlates

Anxiety disorders account for only a fraction of admissions to psychiatric hospital of patients over the age of 65 and a decline in anxiety disorders has been reported in out-
were combined. The prevalence of anxiety disorders was 3.2% in the non-demented and 3.3% in the combined demented group. Psychotic (F = 21.1, df 1,962, P < 0.001) and depressive (F = 11.3, df 3,962, P < 0.001) disorders were more common in demented than in non-demented persons, whereas anxiety disorders showed no difference. No persons with moderate or severe dementia were diagnosed as having an anxiety disorder. Mean MMSE score in those with a diagnosed anxiety disorder was 25.2 (SD 3.1), with a range from 19 to 30. In those without a diagnosed anxiety disorder, the mean MMSE score was 25.5 (SD 4.5), with a range from 0 to 30. Notable was that of the 71 persons with an MMSE score <18, none had an anxiety disorder.

Among the diagnostic psychiatric disorders (OR = 9.8, 95% CI 9.0-10.6) and impaired activities of daily living (OR = 3.0, 95% CI 2.0-4.1) were found to correlate with having an anxiety disorder. The other potentially associated variables included marital status, sex, institutionalisation, educational level, somatic disorders (cardiac, cardiovascular, musculoskeletal, or malignant), visual and hearing problems, or dementia were not found to correlate. No substantial differences were found if demented patients were excluded from the analysis.

The results indicate that anxiety disorders were diagnosed in 3.2% of this population of very elderly adults, and the prevalence was equally distributed in non-demented and demented groups. This finding is in agreement with the prevalence rate reported in the ECA (Edmonton studies, and the Gru¨n’s age concern survey.1)15 Moreover, the present study found that in those persons who were moderate or severe demented, anxiety disorders were not present. A MMSE score of at least 18 seemed to be critical for the presence of an anxiety disorder. This might have been a reflection of the fact that those participants with more severe cognitive dysfunction lacked the cognitive insight or were unable to accurately respond to questions from the CPRS (masking hypothesis), despite the exclusion of those who were unable to provide answers in data analysis. Another possible explanation for this finding may be that demented persons at that level of severity are unable to experience complex integrated emotions due to advanced brain dysfunction (the extinction hypothesis). By contrast, the instrument in use seemed to be able to diagnose depressive and psychotic disorders, even if the person had reached a more severe level of dementia. The high prevalence of the diagnostic psychiatric disorders might also have influenced the fact that the prevalence of depression exceeded the prevalence of anxiety disorders.

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Correspondence to: Dr Y Forsell, Stockholm Gerontology Research Center, Oloversonav 4, S-113 82 Stockholm, Sweden.

Ataxic type of Creutzfeldt-Jakob disease with disproportionate enlargement of the fourth ventricle: a serial CT study

There are few reported imaging studies on the ataxic type of Creutzfeldt-Jakob disease. In our patient MRI and serial CT disclosed a progressive enlargement of the fourth ventricle as a major finding.

A 64 year old woman developed progressive gait unsteadiness in June 1994; she was then evaluated in another hospital where neurological examination (no MR imaging was available to us) were reported as normal. She had no history of neurosurgery or ocular surgery or family history of neurological disease. Examination in September 1994 revealed gait ataxia and gaze nystagmus without out dysarthria. Routine laboratory investigations and tumour markers were normal or negative. Analysis of CSF including IgG content was normal, oligoclonal bands were not detected. Brain CT (figure A, B) was normal for the patient’s age. An EEG showed slowing of background activity. As there was no evidence of systemic cancer or other known aetiologies of cerebellar degeneration, a diagnosis of idiopathic late onset cerebellar ataxia was made. Two months later there was rapid intellectual decline with complex hallucinations, emotional changes, impulsiveness, and confusion, and a vegetative state within a few weeks. Multifocal axial and appendicular myoclonus was now present. Serial wake-leep EEG showed progressive slowing of background activity with occasional periodic complexes. Serial CT (figure C-F) showed progressive cerebellar and brain atrophy with pronounced enlargement of the fourth ventricle. Moderate transverse diameter of fourth ventricle was first noted at first, second, and third examination were 1-3, 1-9, and 2-5 cm (normal value 1-44 cm 0.5-22).

The brainstem ratio was normal in all three CT studies (for the last 0.19 (control value 0.2-0.04)). An MRI study in November 1994 corroborated the CT findings and neither brainstem atrophy nor abnormal signal of white matter or basal ganglia were noted. Two specific proteins p<150 and p313 were not detected, but glycolysis and glutamic acid were not detected. A wide sulphate spongiose degeneration through the grey matter and basal ganglia, most pronounced over the frontal and occipital cortex and the cerebellum. There was considerable loss of granule cells with relative preservation of Purkinje cells that often exhibited axonal "torpedoes". The white matter was gliotic to subcortical but myelin tracts demonstrated no evidence of demyelination. Kuru-like plaques were not found. Spongy degeneration was also seen in the molecular layer of the cerebellum. There were no cortical white matter changes, but there was no cell loss in the pontine and inferior olivary nuclei. Prion protein gene analysis was not performed.

<table>
<thead>
<tr>
<th>Prevalence (%) of anxiety, depressive, and psychotic disorders by dementia severity</th>
<th>Non-demented</th>
<th>Questionable</th>
<th>Mild</th>
<th>Moderate/severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>3 (3)</td>
<td>5 (3)</td>
<td>6 (3)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Depressive</td>
<td>5 (3)</td>
<td>12 (7)</td>
<td>20 (17)</td>
<td>21 (8)</td>
</tr>
<tr>
<td>Psychotic</td>
<td>6 (3)</td>
<td>3 (3)</td>
<td>10 (7)</td>
<td>5 (3)</td>
</tr>
</tbody>
</table>

Actual numbers of patients are given in parentheses.
Anxiety disorders in non-demented and demented elderly patients: prevalence and correlates.
Y Forsell and B Winblad

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