The second DR2 negative narcoleptic patient was a 35 year old lorry driver of Reunion Island origin. He was born and lived there until his moving to Lyon at age 29. Cataplexy attacks occurred 2 years later, soon followed by sleep episodes and severe nocturnal dyssomnia. Polysomnography showed short REM sleep latency. The patient was unaware of a similar case in his family. He was HLA A36 A26/B7 B35/CW/DRW1 DRW3/DQW3. The presence of the A36 antigen indicated his negroid ancestry which was otherwise visible.

In this study, we were able to confirm the extraordinary association between narcolepsy and HLA-DR2 antigen. However, two patients were DR2 negative. One of them was negroid. The other patient was remarkable as narcolepsy was combined with dystrophy myotonica, an exceptional association.6,7

These data have several implications. Firstly, they confirm that narcoleptic patients, especially negroids, may be HLA DR2 negative.8-10 It follows that the absence of the HLA-DR2 antigen is not sufficient to reject the diagnosis. Above all, the gene coding for DR2 antigen is not per se responsible for narcolepsy. All of our patients were HLA-DQW1 positive, as were the 156 patients DQ typed in the literature.1 3 11 Studies on the correlations between HLA class II specificities and DNA Restriction Fragments Length Polymorphism (RFLP) defined with HLA-DQβ cDNA probes have shown that DQW1 can be divided in at least three types,12 the same being present in all narcoleptic patients.5 13 The gene coding for DQW1 may be the primary association with narcolepsy and the causal factor for the disease. Another possibility is that it is simply closer to the hypothalamic narcolepsy susceptibility gene than the gene coding for DR2. Further work, using RFLP studies with new restriction enzymes or DNA sequencing, is necessary to test these hypotheses and to localise precisely the susceptibility gene. Two more questions need elucidation: why the narcolepsy susceptibility gene is in such a tight linkage desequilibrium with the DR2 and DQW1 alleles? What are the mechanisms linking the gene to the disease?

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20 mg isosorbide developed an identical headache. On this occasion it was associated with a left ptosis and diplopia and he was referred for neurosurgical opinion.

On examination blood pressure was 120/80 mm Hg and temperature 37.4°C. There was no neck stiffness but a partial left third nerve palsy and left temporal hemianopia were present. Computed tomography showed a large mass of heterogenous density arising from the pituitary fossa with 10 mm suprasellar extension. The serum pro lactin concentration was normal (102 mU/l, normal <450) and ACTH deficiency was probable in view of the plasma cortisol of <60 nmol/l at the time of presentation.

Three days after admission haemorrhagic pituitary tumour was resected via the transphenoidal route. Immunohistochemistry demonstrated a chromophobe adenoma negative for ACTH, GH, PRL, TSH, LH and FSH.

The third nerve palsy resolved within four days of tumour decompression. Six weeks after operation ACTH function had recovered, permitting the withdrawal of steroids, and the visual fields were normal. The patient remains well on no replacement therapy.

The onset of headache and neurological deficit ninety minutes after ingestion of 20 mg isosorbide mononitrate made it likely that the two events were connected, particularly as this is the time of peak plasma drug concentrations following oral administration of isosorbide.4 Lever et al demonstrated a marked pressor response to TRH in an acromegalic patient who had developed pituitary apoplexy following a TRH stimulation test,2 and it seems likely that changes in systemic blood pressure may produce apoplexy in some pituitary tumours. These tumours may be particularly susceptible to such changes because of the local vascular anatomy; some tumour regions are probably solely dependent on a tenuous blood supply from the hypophysial-portal capillary network.1

The patient described here was naturally unwilling to be rechallenged with isosorbide so blood pressure changes following the drug were not known. Although there are no previous reports in the literature connecting isosorbide and tumour haemorrhage there are a few papers describing transient neurological deficit associated with the vasodilator.5 6 We conclude that vasoactive drugs may induce pituitary apoplexy in some patients with pituitary tumours.

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Cervical syrinx associated with an intra medullary metastasis: case report

Sir: Since its description by Oliver in 1827, syringomyelia and its pathogenesis have continued to be a subject of debate. Syrinxes associated with neoplasms of spinal cord origin have long been recognised, and both the cyst cavity and the associated tumour can now be readily demonstrated with high resolution metrizamide CT scanning and magnetic resonance imaging.1-3 However, the pathogenesis of such cysts has not been much discussed since the 1950s.

Metastasis to the spinal cord is unusual but well described. A syrinx associated with a spinal cord secondary, found in a post mortem specimen, has previously been described.4 We report a case of syrinx associated with an intramedullary spinal cord metastasis diagnosed during life. Its pathogenesis is discussed.

Mr JT had undergone an anterior resection for a Duke’s stage ‘C’ colorectal adenocarcinoma in 1980 and had no evidence of systemic recurrence. He presented in November 1984 aged 66 years, with a 2 month history of mild weakness of the left arm and leg of gradual onset. He felt well, and there was no history of neck injury or neurological disorder. Examination revealed slight weakness of the left leg and a left extensor plantar response. He was followed in out-patients and his condition remained stable for several months. His condition deteriorated in April 1985 and he presented with a one week history of rapidly progressive weakness in the right leg and severe pain and hyperaesthesia in the right arm. Examination revealed bilaterally brisk arm reflexes, with marked hyperaesthesia in a C5/T1 distribution on the right. There was a bilateral pyramidal weakness in the legs. Bladder and bowel function were normal and anal tone preserved.

The patient was admitted and a myelogram performed. (fig. a). A CT scan of the cord obtained the following day showed uptake of metrizamide into a cystic lesion extending over the same segments. (fig. b). Five days later the patient developed painful urinary retention and faecal incontinence. Examination revealed increasing motor deficit in his right arm and legs, an enlarged tender bladder and loss of anal tone.

At operation no extradural or intradural extra-medullary pathology was noted. The spinal cord exhibited a smooth swelling extending over four centimetres. A fine needle was passed into this and 1 ml of clear fluid aspirated; it was indistinguishable from CSF previously obtained at myelography. Exploration confirmed a cyst cavity with a purple grey mass at the canal end. The mass was surrounded by oedematous spinal cord tissue and could not be excised completely.

After the operation the patient developed worsening tetraparesis, and he died in early June. Histology of the biopsy specimen showed a poorly differentiated adenocarcinoma similar in appearance to that of the patient’s bowel tumour. Post-mortem examination revealed widespread metastatic disease affecting the ribs and chest wall, the abdominal lymph nodes and the body of the seventh thoracic vertebra. No intracranial deposits were found. Sections of the spinal cord showed cavitation in the upper cervical region with intramedullary tumour.

Imaging, operative and post-mortem findings confirm the presence of a syrinx in this patient. Wetzin, in 1969, made the only previous report of such a finding, in a post-mortem specimen from a neurologically asymptomatic patient.4 He concluded that the syrinx could have predated the metastasis, since there were no clues from the history. In our case, the history suggests that syrinx formation was of recent origin, presumably secondary to the metastasis. This finding may give a clue to the pathogenesis of some tumour-associated "non-communicating" syringes.

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