In the control subjects there were 1) no difference in serum or CSF ACT and ITI contents between males and females, 2) no correlation between age and both serum ITI and CSF ACT contents, and 3) a positive correlation between serum ACT contents and age (p < 0.02).

Between AD patients and controls, there were no difference in serum CSF ACT and ITI contents, and no difference of the ACT/CSF ratio (table).

In AD patients there was no correlation between the severity of dementia on MMS and Blessed scores and serum or CSF ACT contents, and a negative correlation between MMS and Blessed B scores and serum ITI contents (p < 0.05).

Our results show that ACT and ITI are not useful markers of AD in serum and CSF. They don’t confirm the hypothesis that there is a positive correlation between serum ITI contents and the severity of the dementia could be explained by non specific metabolic disturbances.

Are alpha-1-antichymotrypsin and inter-alpha-trypsin inhibitor peripheral markers of Alzheimer’s disease?

The definite diagnosis of Alzheimer’s disease (AD) requires both clinical criteria of probable AD and neuro pathological evidence of AD lesions. At present there is no laboratory test for a premortem diagnosis. Recently, genetic and histochemical studies identified protease inhibitors as components that might be implicated in the formation of the amyloid substance in AD brains. First, Abraham et al. suggested a potential role of alpha-1-anti- chymotrypsin (ACT) in the pathogenesis of the lesions, moreover Matsubara et al. found an increased serum concentration of ACT in AD. Second, several authors* showed that one transcript of A4 amyloid precursor contains an additional sequence similar to the active site of inter-alpha-trypsin inhibitor (ITI). The purpose of our study was to test the diagnostic value of ACT and ITI in serum and CSF from AD patients.

Sera and CSF were collected from eight men and 16 women with probable AD, mean (SD) age 66 (9.8) years, and from a control group of 19 men and six women aged 64 (8.3) years. Controls were volunteers free of any neurological disease, with a MMS score higher than 28, who had had a myelo or radiculography for proven disk herniation. CSF was not collected especially for this study. The procedure was approved by the ethical committee of Lille. ACT and ITI contents were measured by electroimmuno- diffusion methods. Semi-quantitative determination was used for ITI in CSF because of its low concentration. Statistical assessment used non parametric tests (Mann and Whitney’s U test and Spearman’s rank correlation test).

In January 1981 he was referred to the neurology clinic with a three month history of progressive painless wasting and atrophy of the shoulder girdle muscles. There was marked bilateral winging of the scapulae, left worse than right. The trapezi, rhomboids, supra- and infraspinati, deltoids, teres major and both sternocostal and clavicular heads of the pectoralis major muscles were wasted, more on the left, and power was reduced to grade 4 on the left and 4+ on the right. There was minimal weakness of the spinati and triceps muscles were spared as were the distal upper limb muscles and lower limbs. There was questionable weakness of the orbicularis oculi and failure of frontalis to maintain elevation of the eyelids. Although his face was thin there was no focal wasting or demonstrable weakness of the other facial muscles. There were no sensory symptoms or signs. Tenodesis reflexes were well preserved and symmetrical. Plantar reflexes were flexor.

Investigations at this stage including muscle enzymes, thyroid function, cerebral spine radiographs, haematological screen and bone marrow were normal. Electrophoretic (EMG) studies revealed reduced amplitude of the subjective response of the conduction block. In the right tibialis anterior a full interference pattern occurred with occasional polyphasic units of normal amplitude and duration which were not felt to be of clinical significance. Muscles

Postradiation motor neuron syndrome of the upper cervical region—a manifestation of the combined effect of cranial irradiation and intrastrate chemotherapy?

CNS prophylaxis is now an integral part of the treatment of acute lymphoblastic leukaemia and was treated according to the United Kingdom Acute Lymphoblastic Leukaemia Trial 4 (UKALL 4) (intensive) schedule. This comprised induction with cyclophosphamide, cytosine arabinoside (ara-C), vincristine, prednisolone and intrathecal ara-C; consolidation with the same, together with adriamycin, asparaginase, 6-mercaptopurine, intrathecal metotrexate and cranial irradiation; and maintenance with vincristine, metheroxate, ara-C and 6-mercaptopurine and prednisolone. The total dose of irradiation was 2400 cGy (rads) and the field extended to the level of the C3 vertebral body.

Apart from an early bone marrow relapse in June 1976, he made a complete recovery. In particular, there was no evidence of CNS involvement at any time.

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sampled serially showed little change with time.

Nerve conduction studies showed normal motor latencies, conduction velocities and F wave latencies. The ulnar sensory nerve action potentials in the mixed motor nerve potentials were of reduced amplitude but also had normal conduction times, suggesting an axonal degeneration.

A biopsy of the deltoid and quadriceps muscles showed non-specific changes only and no dystrophic features.

In February 1989 an MRI scan of the cervical spine showed the upper cervical cord to have reduced signal intensity on the T2 weighted spin echo sequence, the significance of which was unclear.

This patient developed an asymmetrical and patchy wasting and weakness of the shoulder girdle muscles involving several myotomes from C3 to C7. The explanation for the symptomless minimal weakness of the orbicularis oculi and frontalis muscles is uncertain. It may reflect patchy involvement of a similar, symptomless involvement of the other cranial nerves such as the bulbular muscles would escape detection) or might merely be constitutional.

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