Antibodies to ds (native) DNA in chronic active hepatitis (CAH). P. Davis and A. E. A. Read (*Department of Medicine, Bristol*)

Recent studies have suggested that antibodies to DNA have a high degree of specificity for systemic lupus erythematosus (Tan *et al.*, 1966). These antibodies have, however, also been described in discoid LE (Mandel *et al.*, 1972).

Chronic active hepatitis is an immune liver disease which has many clinical and serological similarities to SLE (Read *et al.*, 1963). In particular antinuclear antibodies and evidence of complement conversion are common (Gitnick *et al.*, 1973). The aim of this study was to determine the incidence of antibodies to ds DNA in CAH.

Sera from 36 patients with CAH were studied using the Farr ammonium precipitation test and the filter radioimmunoassay technique. 15 of the 36 cases (42%) had levels of antibody previously only seen in patients with active SLE. These antibodies were detected despite steroid therapy in the majority. Antibodies to ds DNA were not found in 22 cases of other liver disease, including alcoholic cirrhosis and primary biliary cirrhosis, nor in a number of control sera. Serial studies showed that levels of DNA antibody rise and fall with disease activity as determined by liver function tests and clinical parameters. There was an inverse relationship between the height of DNA antibody and serum complement levels and a direct relationship between the height of DNA antibody and the presence of C3 breakdown products.

This study suggests that DNA antibodies may not be as specific for SLE as was previously thought or, that CAH and SLE have further immunological similarities. These antibodies may have diagnostic and therapeutic value in the study of immunological liver disease.

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Mobilization of chest wall for fixed chest in ankylosing spondylitis. C. E. Drew, C. Foster Cooper, D. N. Golding, P. Marks (*Princess Alexandra Hospital, Harlow*)

In 1956, one of us was presented with a patient with ankylosing spondylitis who had a fixed chest and severe respiratory insufficiency. The theoretical problems and the possible complications of attempting mobilization of the chest wall were studied before the operation was

carried out. This consisted in removing parts of the ribs on both sides adjacent to the costovertebral joints in two stages. The patient was greatly improved by the procedure and, as an unforeseen bonus, showed greater movement of the head and neck.

Since that time a further 5 patients have been operated upon: 3 with the intention of improving respiratory function, and 2 in the hope that head and neck movement would be improved.

Radiological and clinical relationship between idiopathic carpal tunnel syndrome, humeral epicondylitis, and cervical spine changes. C. Murray-Leslie and V. Wright (*Rheumatism Research Unit, University of Leeds*)

A study was carried out to establish and investigate the possible association between tennis elbow (TE) and idiopathic carpal tunnel syndrome (ICTS) with particular reference to the radiology of the cervical spine.

43 patients under 55 years of age who had surgery for 'electrically' proven ICTS over a 3-year period (1970-1973) were reviewed and compared clinically and radiologically with an age- and sex-matched group of control patients taken from a fracture clinic. A high frequency (32.6%) of TE was confirmed in the ICTS group, compared with a frequency of 6.9% in the control group. No significant differences could be shown between the patients with and those without TE in respect of the 'electrical' severity of their median nerve compression (MNC), the length of time between surgery and review, or the adequacy of the surgical relief of hand symptoms. It was noted however that every instance of TE save one occurred on a side where clinical or electrical evidence of MNC had been presented at some stage.

Cervical radiographs of the ICTS and control patients were read in a 'blind' and randomized fashion. A low and very similar prevalence of both disc degeneration and foraminal narrowing was found in each group. The anteroposterior sagittal diameters of the cervical spinal canal were measured by the method of Burrows (1963) and the mean diameters were smaller at each level in the ICTS patients than in the controls. These differences were significant at C1 and C6 ($P < 0.05$) and also when the means of the average canal diameters (for each patient) in the two groups were compared ($P < 0.05$). Further significant differences were shown within the ICTS group, with those patients with TE having significantly smaller minimum sagittal diameters ($P < 0.05$) and significantly smaller diameters at C6 and C7 ($P < 0.01$) than those patients without tennis elbow.

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