

## A comparison of double antibody and chromatoelectrophoresis techniques in radioimmunoassay for human growth hormone (HGH)

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A comparison of double antibody (D) and chromatoelectrophoresis (C) techniques for HGH radioimmunoassay was studied. Same materials were used in both techniques. Incubation was carried out so that serum was diluted to 1:10 in final volume. Reproducibility was  $100 \pm 18.3$  and  $100 \pm 14.7\%$ , recovery  $118 \pm 9.4$  and  $101.7 \pm 15.1\%$  in D and C techniques, respectively. Serum samples were assayed by two methods and yielded corresponding values of HGH except low levels. Some sera from patients with panhypopituitarism were determined to be not detectable by C technique but could be detected by D. Standard curve with added HGH to the undiluted serum was not coincident to that with HGH in buffer containing 0.5% BSA. The difference of these standard curves could not be corrected by changing the time of incubation or adding EDTA to buffer. Damaged material of  $^{125}\text{I}$ -HGH remaining in the supernatant after centrifugation was assessed by C technique.

The 'damage' was  $8.8 - 11.2 (10.0 \pm 1.27)\%$  greater in the supernatant containing undiluted serum than in that of buffer. This 'damage' seems to have no immunoreactivity since there was no significant change in the damage % with or without antiserum. If it was excluded from total count and Bound % was adjusted, HGH values read from standard curve of D corresponded to those obtained by C technique. When serum was beforehand diluted to 1:4, or 1:8, namely diluted to 1:40 or 1:80 in final volume, the 'damage' did not exceed that in buffer and standard curve with added HGH to the serum (1:4 or 1:8) was coincident to that with HGH in buffer. In conclusion, it was confirmed by chromatoelectrophoretic assessment of the 'damage' remaining in the supernatant that a non-specific inhibitor in the double antibody radioimmunoassay for HGH could be neutralized by the dilution of serum.

## $^{99\text{m}}\text{Tc}$ -pertechnetate Scanning of Salivary Gland Inflammations

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Sialogram only give direct informations on the status of the duct system. On the other hand, scintigrams using  $^{99\text{m}}\text{Tc}$ -pertechnetate can give informations on the functions of the salivary gland. Thus both sialograms and scintigrams should be used for diagnosis of salivary gland disturbances. We report some cases on inflammations of salivary gland.

Method; Scans were started 60 min. after

intravenously administration of  $^{99\text{m}}\text{Tc}$ -pertechnetate ( $40 \mu\text{Ci/Kg}$ ). Patient lying on his back, anterior scans were held by moving scanner head horizontally, and lateral scans were held using vertically move head equipped with special gear, with no necessity of changing the patient's position. We scan the specimens before and after the exitation which was done by placing a filter-paper dipped in 1/4N tar-