

α -Fetoprotein in Testicular Tumors

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α -fetoprotein in 20 cases with testicular tumors was measured by radioimmunoassay. Based on Dixon and Moor's classification, testicular tumors were histologically divided into five groups—group I (7 cases), II (9), III (2), IV (2), and V (0). Histology in groups II, IV, and V included embryonal carcinoma.

α -fetoprotein values above 20ng/ml were evaluated as positive. Positive values were observed in 3 out of the 9 cases in group II, and 1 out of the 2 in group IV. In groups I and III, all cases showed normal values.

α -fetoprotein values in 9 out of the 20 cases were measured from time to time before castration for testicular tumors. Abnormal values were obtained in 3 out of the 4 cases with testicular tumors containing embryonal tissues in these 9 cases

These results revealed that α -fetoprotein measurement for patients with testicular tumors is valuable in the differential diagnosis of embryonal testicular tumors and in the follow-up of prognosis. Accordingly, routine measurement of α -fetoprotein is indispensable for testicular tumors.

Effect of Hormonal Therapy on Plasma FSH, LH and Testosterone Levels in Prostatic Carcinoma

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Plasma FSH, LH and testosterone were estimated before and after administration of LH-RH in patients who had had various forms of endocrine treatment for prostatic cancer.

Plasma FSH and LH levels were elevated after administration of LH-RH immediately after orchidectomy with hexestrol. However,

the plasma testosterone level fell to lower amounts than that found in normal women, irrespective of the clinical response. Subsequently the response of pituitary to LH-RH was suppressed over a period of six months' estrogen therapy. However, the sensitivity of adrenal cortex to LH was elevated, a small but sign-

ificant rise in the plasma testosterone levels following administration of LH-RH or HCG was observed in this period. Medical adrenalectomy lowered the plasma testosterone level to negligible amount in patients who had been on hexestrol. In advanced metastatic disease this was often associated with relief of pain.

On the other hand, in patient who was treated by only orchidectomy the pituitary reacted significantly to administration of LH-RH and the plasma testosterone was found in very high levels and the tumor of the prostate was rather enlarged over a period twenty months' after orchidectomy.

An Attempt to Simplify Preparation of Renal Scintigram Agent ^{99m}Tc -Penicillamine-Acetazolamide Complex (^{99m}Tc -PAC)

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Ever since a new renal scintigram agent ^{99m}Tc -PAC replacing ^{203}Hg chlormerodrin was reported by Halpurn et al., renal scanning with ^{99m}Tc -PAC has been practiced at various clinics and laboratories because of its advantages such as 1) exposure dose is reduced, 2) examination time is shortened, 3) renal shadow and internal structure is clearly indicated, and 4) fine image is available even with hypofunction kidney. This scintigram is highly evaluated clinically.

We have long followed the method of Halpurn et al. to obtain renal scintigram this method has some disadvantages such as 1) concentrated hydrochloric acid is used as reducing agent, 2) pH meter has to be operated, and 3) autoclave has to be used. Having amended these disadvantages, we simplified the preparation of ^{99m}Tc -PAC and reported it at the 73rd meeting of the Kyushu

Radiological Society.

Recently we further reviewed the matter and effected the following improvements. 1) SnCl_2 is used as reducing agent instead of concentrated hydrochloric acid; 2) phenolphthalein indicator is used for pH recipe; and 3) autoclave may be substituted by sand bath for preparation of ^{99m}Tc -PAC.

As a result, in the pH range of 8.5~9.5 where appropriate quantity of SnCl_2 is 1.5-2.0 mg, there was no big difference in yield. Accordingly, the use of an indicator as phenolphthalein is sufficient for pH recipe. Moreover, the above facts suggest that simplified preparation is available if the reagents to be used are sterilized in advance.

We have prepared ^{99m}Tc -PAC using SnCl_2 reduction method in daily examinations and obtained renal scintigram no inferior to that obtained by Halpurn's method.