

<特 講>

Radionuclide Tumor Scanning

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Positive delineation with tumor affinity radiopharmaceutical to depict a tumor as hot lesion in cold area has definite advantages over negative delineation with organ specific radiopharmaceutical where a tumor is visualized as a cold lesion in hot area. The image of the tumor itself might be enlarged by respiratory movement and by shading due to collimator and intrinsic factor of the detector. Theoretically small tumors could be easily detectable provided they are much more radioactive than the surrounding tissue. It also makes possible to follow the metastatic lesions all over the body. Therefore, it is extremely important to develop the radiopharmaceutical which can specifically accumulate in the tumorous tissue.

In the present lecture I would like to introduce our studies on the development of tumor scanning agents over twelve years. These include ^{131}I -human serum albumin, $^{99\text{m}}\text{Tc}$ -human serum albumin, ^{203}Hg -hematoporphyllin, ^{131}I -human fibrinogen, radiolanthanides such as ^{169}Yb citrate and new agent, ^{201}Tl chloride.

Also I will describe the indications of tumor scanning, clinical experiences with many radiopharmaceuticals including ^{67}Ga citrate and ^{57}Co bleomycin, and comparisons of their clinical results. Each has inherent limitations and in spite of extensive endeavor of many groups, no ideal tumor scanning agent has been developed yet.

Finally, I would like to classify the clinical tumor scanning agents reported so far and introduce topics on several new ways in future study.

1. 慢性腎不全에서의 TRH 刺激試驗에 關한 研究

A Study of TRH Stimulation test in
Chronic Renal Failure

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慢性腎不全 患者에서의 甲狀腺호르몬의 代謝異常은 잘 알려진 事實이다. 이런 患者에서 심한 蛋白尿가 있음에도 불구하고 血清 thyroxine 結合蛋白値와 血清 T_4 値가 正常範圍에 있다는 것은 大部分의 報告가 一致하나 血清 T_3 値 및 TSH 値에 對하여서는 많은 相異한 報告가 있다. 또한 TRH 에 對한 TSH 의 反應도 報告者에 따라 多少 差異가 있으나 最高値에 도달하는 時間과 正常으로 되는 時間이 모두 遲延된다고 알려지고 있다.

이에 演者들은 1976年 10月부터 1977年 4月까지 서울大學校 附屬病院 內科에 入院한 慢性腎不全 患者 10名을 對象으로 하여 血清 T_4 値, T_3 値 및 TSH 値와 T_3RU , FT_4 index 값을 測定하고 TRH 에 對한 TSH 의 變化를 觀察하여 다음과 같은 結果를 얻었다.

1) 血清 T_4 値는 8例에서는 正常範圍(6.5~13.5 $\mu\text{g}/\text{dl}$)에 屬했으나 2例에서는 正常以下の 낮은 値를 나타내었다.

2) 血清 T_3 値는 7例에서는 正常以下の 낮은 値를 나타냈으나 3例에서는 正常範圍(60~200 ng/dl)의 下限値를 나타내었다.

3) T_3RU 는 8例에서는 正常範圍(25.2~35.2%)에 屬했으나 1例에서는 正常以下の 낮은 値를 나타내고 1例에서는 正常以上の 높은 値를 나타내었다.

4) FT_4 index 는 8例에서는 正常範圍(1.63~4.75%)에 屬했으나 2例에서는 正常以下の 낮은 値를 나타내었다.

5) 血清 TSH 値는 3例에서는 正常範圍(1.5~6.0 $\mu\text{U}/\text{ml}$)에 屬했으나 2例에서는 正常以下の 낮은 値를