Application of Triosorb test in the field of Obstetrics and Gynecology

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Triosorb Test was applied in field of Ob. & Gyn. as follows.
1) The mean value in pregnant women (215 cases) was significantly low.
2) The mean value in postpartum 1-5 days (73 cases) was 21.5 ± 0.8% and in postpartum 30 days was normal range.
3) The mean value in sterility (184 cases) was 30.0 ± 0.6%. This is approximately in normal range, but the value was somewhat lower compared with normal female significantly.

4) The mean value of threatened abortion (17 cases) was 28.4 ± 1.5% significantly higher than normal pregnant cases.
5) The mean value in habitual abortion, functional uterine bleeding and dysfunction of ovarii was 29.5 ± 1.4%, 29.5 ± 2.4% and 29.0 ± 2.0%.
6) It might be concluded after these experiences that this test was simple and convenient for the clinical screening of the thyroid function in the field of Obst. & Gyn, especially in the care of pregnancy.

An Evaluation of Postoperative Changes of $^{131}T_3$ Resin Sponge Uptake

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The resin uptake of $^{131}$I-$T_3$ in various thyroid diseases was measured to investigate the preoperative thyroid function, the effect of surgical treatment for hyperthyroidism and the postoperative alternations of thyroxin binding capacity.

In this study, Triosorb Diagnostic kit was used. As to the cases with surgical procedures, sera was obtained both before and serially at intervals after their surgical procedures as follows:

(1) before operation, (2) on the day of postoperation, (3) 1st, 3rd, 5th and 7th postoperative day.

Results:—

23~36% (30.01 ± 3.86%) for 10 normal subjects, 39~58% (48.20 ± 5.46%) for 16 cases with hyperthyroidism; 24~35% (30.11 ± 3.63%) for 7 cases with non-toxic diffuse goiter; 20~34% (28.78 ± 4.75%) for 7 cases with malignant goiter, 21~37% (29.36 ± 3.94%) for 36 cases with non-toxic nodular goiter; 17~24% (21.09 ± 2.75%) for 5 cases with hypothyroidism.

There was no overlap between normal subjects and hyperthyroidism. Non-toxic diffuse goiter revealed a normal range of $^{131}$I-$T_3$ resin uptake, while thyroid cancer and non-toxic nodular goiter revealed normal range or slightly lower range than euthyroidism. Hypothyroidism revealed resin uptake of lower than 24%, but there was overlap between several of these subjects and euthyroidism.

In these cases, correlation between resin uptake of $^{131}$I-$T_3$ and $^{131}$I thyroid uptake was approximately parallel.

Correlation between $^{131}$I-$T_3$ resin uptake and basal metabolic rate was also approximately parallel except in the few cases of non-toxic disorders which had revealed higher basal metabolic rate compared with resin uptake of $^{131}$I-$T_3$.

In all 6 cases with hyperthyroidism (all were treated with subtotal thyroidectomy), $^{131}$I-$T_3$ resin uptake following operation decreased gradually and on the 7th day of surgery demonstrated mean decrease of 8.2% compared with preoperative levels.

In 5 cases of thyroid cancer (all were treated with unilateral hemithyroidectomy), postoperative $^{131}$I-$T_3$ resin uptake decreased
on the day of surgery, while slightly increased on the 1st postoperative day, had maximal increase on the 3rd postoperative day then gradually returned nearly to the preoperative level by the 5th or 7th day of surgery.

In 22 cases of non-toxic nodular goiter (20 cases were performed enucleation and 2 cases with unilateral hemithyroidectomy), the resin uptake of $^{131}$I-T$_3$ after surgery revealed increase in all almost cases. These effects, which commenced on the day of postoperation, were maximal on the 3rd postoperative day, then returned to or nearly to the preoperative level by the 5th or 7th postoperative day.

By these results, it was suggested that postoperative alternations of $^{131}$I-T$_3$ resin uptake was influenced by various type of thyroid disease and operative methods.

Change of TBC and Resin Sponge Uptake After the Administration of TSH and T$_3$

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It was investigated that whether or not TBC changed accompanying with the change of thyroid function after the administration of TSH (Thytopar 10 USP) or T$_3$ (100 ug/day), and if it did so, the changes of Resin Sponge Uptake (RSU) corresponded to TBC. High TBC were obtained in hypothyroid subjects and the values overlapped with that of normal and hyperthyroid subjects.

Unsaturated TBC were not overlapped between each groups and TBC were nearly saturated with endogenous thyroid hormone in hyperthyroid subjects.

RSU were high in hyperthyroid subjects and overlapped in normal and hypothyroid subjects.

Correlation between unsaturated TBC and RSU were obtained.

In TSH responded group, there were no differences of regression coefficients between unsaturated TBC and RSU before and after TSH injection.

In TSH responded group, PBI increased and it was likely that TBC decreased and RSU increased but the increase of RSU was not significant.

In normal subjects, RSU decreased slightly with the administration of T$_3$ for 7 days.

$^{131}$I-Triiodothyronine Resin Uptake Test as an In-vitro Test of TSH Response of the Thyroid Gland

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To examine the availability of $^{131}$I-triiodothyronine resin sponge uptake (RU) in serum as a test of response of the thyroid gland to exogeneous TSH, it was compared with the thyroidal uptake (TU), which is routinely used, as TSH-test in a total 80 euthyroid volunteers and patients with some thyroidal diseases.

Both tests were simultaneously performed before and 24 hours after TSH (thythropar 5 USP) injection and increase of RU more than 3% was judged as positive response.

The results of both tests corresponded in 63% of all cases, but in 78% of euthyroid volunteers among them.

It seemed to be noteworthy that RU and