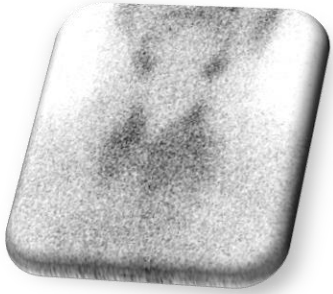


Effects of ultra low dose of recombinant-Human-Thyrotropin (rhTSH) stimulated radioiodine therapy in patients with large nontoxic multinodular goiter (MNG).

F. Spyroglou, E. Papanastasiou, A. Doumas, G.Gerasimou, E. Giannoula, I Iakovou

Department of Nuclear Medicine, Aristotle University, AHEPA hsp, Thessaloniki

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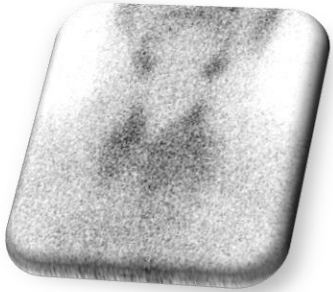
INTRO:

Several treatment options exist after thyroid malignancy has been ruled out in patients with multinodular goiter.



- Surgery efficiently reduces the goiter size carrying the risk of both surgical and anesthetic complications.
- In recent years LT4 suppressive therapy has been abandoned.
- While ^{131}I therapy is the only nonsurgical alternative its effectiveness diminishes with increasing goiter size. rhTSH approximately doubles the thyroid ^{131}I uptake in patients with MNG.

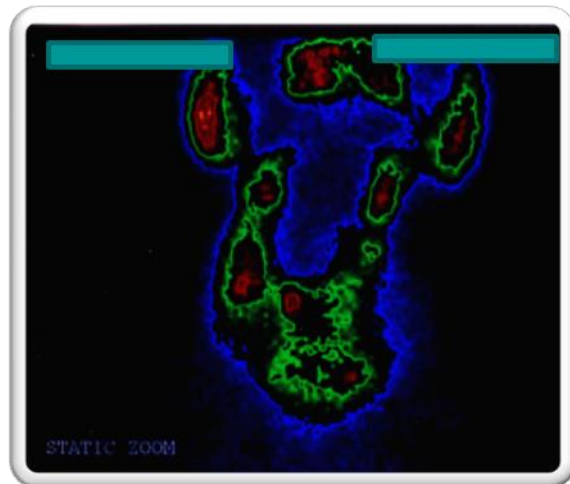
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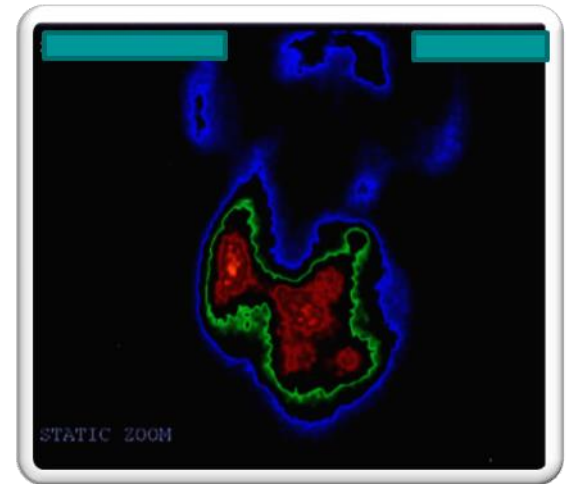
Aim: to assess the efficacy and safety of ultra low doses of rhTSH as an adjuvant to a fix dose of ^{131}I therapy in patients with large non-toxic MNG

PATIENTS AND METHODS: 25 females, aged 62.4 yrs (31-82), with large non-toxic MNG, over 80gr, received 15mCi of ^{131}I , 24h after i.m injection of 0.05mg rhTSH.

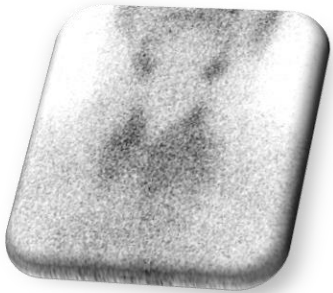
End point → thyroid volume change as assessed by ultrasound during a follow up period of 8 months.



0.05mg rhTSH



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RESULTS:

- Significant volume reduction of thyroid volume (>35%) was observed at the end of the follow up period in 23/25 patients
- A positive correlation between the TSH increasement (TSH before/ 24h after rhTSH stimulation) with the percentile of thyroid volume reduction ($r=0.82$, $p<0.01$) was noted.

CONCLUSION: Radioiodine therapy approach after stimulation with ultra low doses of rhTSH in patients with large non-toxic MNG goiter seems to be interestingly attractive in terms of efficient thyroid volume reduction while minimizing the potential risks of an operation.