

Radioactive iodine (RAI) treatment of hyperthyroidism is safe in patients with Graves' orbitopathy--a prospective study.

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Abstract

INTRODUCTION:

Radioactive iodine (RAI) therapy may induce or worsen orbitopathy (GO) in Graves' disease (GD). The aim of this study was a prospective assessment of the risk of GO exacerbation in a GD patients cohort submitted to RAI therapy for hyperthyroidism.

MATERIAL AND METHODS:

208 consecutive GD patients treated with ¹³¹I in 2007 were enrolled. The analysis was performed on 156 patients strictly monitored for one year. Glucocorticosteroid (GCS) prophylaxis was administered if GO symptoms or GO history were present, and in cases of tobacco smokers even without GO symptoms. Clinical and biochemical evaluation at one, three, six, and 12 months after therapy was performed in the whole group, then at 24 months in 138 patients.

RESULTS:

There was no severe GO progression in patients without GO symptoms at the time of RAI treatment. The risk of severe GO worsening for preexisting GO patients (demanding systemic GCS administration) during the 12-month follow-up after RAI therapy was 10%. 12 and 24 months after ¹³¹I administration, stable improvement compared to the initial GO status had been achieved in most (98-96%) patients.

CONCLUSIONS:

1. In patients with mild GO, the risk of severe GO worsening after RAI therapy is acceptable, as long as RAI therapy is applied with GCS cover. 2. In patients without GO symptoms at the time of RAI therapy but with a history of GO and with subclinical GO diagnosed by MRI only, the risk of severe progression is minimal. 3. Distant outcomes of RAI treatment confirmed its safety in GO patients.