

**Conclusion:** A short period of prednisone therapy is useful to restore more quickly euthyroidism in patients with a poor performance status and a severe destructive thyrotoxicosis induced by PD-1 blockade. This treatment does not impair the efficacy of immunotherapy.

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## Thyroid

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### *Steroid Treatment in the Management of Destructive Thyrotoxicosis Induced by PD1 Blockade*

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**Background:** Destructive thyroiditis is the most common endocrine immune related adverse event (iRAEs) in patients treated with anti-PD1/PD-L1 agents. Given its self-limited course, current guidelines recommend no treatment for this iRAE. Nevertheless in patients with enlarged thyroid volume and a poor performance status, thyrotoxicosis may be particularly severe and harmful. Aim of the study is to evaluate if steroid treatment might be useful in improving thyrotoxicosis in subjects with a poor performance status.

**Methods:** We conducted a case-control study, comparing the course of thyrotoxicosis of 4 patients treated with oral prednisone at the dosage of 25 mg/d (tapered to discontinuation in three weeks) and an enlarged thyroid volume to that of 8 patients with similar thyroid volume who were left untreated.

**Results:** No difference was found between the two groups at the onset of thyrotoxicosis (time 0) in demographic characteristics and in the levels of thyroid hormones. The levels of thyroid hormones were lower in subjects treated with prednisone compared to those untreated at time 7, 14, 21, 28, 35, 42, 60 and 90 days ( $P < 0.05$  at each time). The median time to remission of thyrotoxicosis was 24 days in patients treated with steroids and 92 days in untreated patients ( $P < 0.001$ ). At 6 months, the rate of evolution to hypothyroidism was similar in the 2 groups (4/4 in steroid group vs 7/8 in untreated group,  $P = 0.74$ ) and no difference was found in tumor progression (Progression free survival in treated group 5.1 months vs 5.0 months in untreated patients,  $P = 0.89$ ).