



## THYROIDITIS

### Treatment of subacute (viral) thyroiditis with low dose corticosteroids

#### BACKGROUND

Subacute thyroiditis is usually due to a viral infection of the thyroid which often leads to neck and ear pain, fever, muscle aches and tenderness over a swollen thyroid. It may result in initial hyperthyroidism as the thyroid gland releases its stored hormone, followed by hypothyroidism and then a return to normal. This process may take many months to evolve. The pain occurs in the beginning of the illness and can be severe. The usual treatment for the pain is to use nonsteroidal anti-inflammatory drugs such as ibuprofen. For severe pain, a course of corticosteroids can be effective, starting with a high dose of 40 mg of prednisone and then a slow taper of the drug. The response to prednisone is usually quite rapid, but the thyroiditis may recur while the drug is tapered and high doses of corticosteroids, like prednisone, may have undesirable side effects. The current study is an evaluation of the efficacy of a low dose (15 mg per day) of a different corticosteroid, prednisolone, given for 2 weeks followed by a reduction by 5 mg every 2 weeks as tolerated.

#### THE FULL ARTICLE TITLE

Kubota S et al. Initial treatment with 15 mg of prednisolone daily is sufficient for most patients with subacute thyroiditis in Japan. *Thyroid*. December 10, 2012 [Epub ahead of print].

#### SUMMARY OF THE STUDY

Over almost a 4 year period the authors diagnosed

384 patients with subacute thyroiditis, of which 219 patients were treated with low dose prednisolone. About 80% of the patients had elevated free thyroxine levels at the beginning of the study. Thyroiditis improved in 6 weeks in 113 patients (51.6%), while 106 patients took prednisolone for 7 weeks or longer, including 27 who took it for more than 12 weeks. About 20% of the patients took more than 8 weeks to recover. Of interest, the higher the free thyroxine and triiodothyronine levels, the shorter the period of time that the therapy had to be given. Transient hypothyroidism occurred in 31% of patients and permanent hypothyroidism in 3.6%.

#### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study showed that subacute thyroiditis could be treated effectively with a low dose of prednisolone for 2 weeks followed by a tapering dose. This is an important study as it shows that patients with painful, subacute thyroiditis could be effectively treated with a dose of corticosteroid that is about half of the dose that previously has been recommended, with similar results of 80% remission and 20% relapse rate.

— Glenn Braunstein, MD

#### ATA THYROID BROCHURE LINKS

Thyroiditis: <http://www.thyroid.org/what-is-thyroiditis>

#### ABBREVIATIONS & DEFINITIONS

**Steroids/Glucocorticoids:** general antiinflammatory and immunosuppressive drugs that are commonly used for the treatment of many autoimmune diseases associated with inflammation. Prednisone is one of the most commonly used corticosteroid.

**Thyroxine (T<sub>4</sub>):** the major hormone produced by the thyroid gland. T<sub>4</sub> gets converted to the active hormone T<sub>3</sub> in various tissues in the body.

**Triiodothyronine (T<sub>3</sub>):** the active thyroid hormone, usually produced from thyroxine.

**TSH: thyroid stimulating hormone** – produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.