MRSA Thyroiditis and Thyrotoxicosis: A Case Report

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ABSTRACT

Acute suppurative thyroiditis is an uncommon thyroid disease. Thyrotoxicosis can be a dangerous sequela of such an infection due to the destruction of gland architecture and the release of thyroid hormone. Though MRSA is not an infrequent cause of head and neck soft tissue infections, it has rarely been associated with suppurative thyroiditis and thyrotoxicosis. We present a patient with MRSA thyroiditis causing thyrotoxicosis and compare her management to a previously reported case.

METHODS AND MATERIALS

A patient with MRSA thyroiditis and thyrotoxicosis was identified from the experience of the otolaryngology-head and neck surgery service at the Baylor College of Medicine and The Methodist Hospital. Additionally, the PubMed database was queried for “MRSA thyroiditis and thyrotoxicosis.” Inclusion criterion were applied to any patient with culture proven MRSA thyroiditis and thyrotoxicosis. Exclusion criteria were to omit cases without documented follow-up and cases without available translation into the English language.

CASE PRESENTATION

A 45 year-old obese female with asthma and schizophrenia presented to our service for evaluation of a thyroid mass. She had been previously hospitalized at an outside facility with complaints of fever, dysphagia and odynophagia. During this hospitalization, she became acutely toxic while being treated with cindiamycin for a presumptive bacterial pharyngitis. She was intubated and transferred to the intensive care unit (ICU) for management of respiratory failure, tachycardia and hypertension. She was subsequently transferred to our institution for further evaluation. Upon arrival, she was afebrile with stable vital signs. A firm mass could be palpated in the anterior neck, and associated soft tissue cellulitis was noted. A white blood cell count of 8100 cells/µL, a TSH of 0.01 mIU/L and a free T4 of 5.2 ng/dL were measured. A contrast enhanced CT of the neck was performed, which revealed an enlarged thyroid gland with evidence of abscess formation (figure 1). A direct laryngoscopy was performed during the patient’s second hospital day, which revealed edema of the pharyngeal and laryngeal mucosa. Specifically, no distinct pharyngeal or laryngeal lesions or fistulae were noted. An ultrasound guided fine needle aspiration of the thyroid gland revealed a MRSA infection. The patient was started on systemic dexamethasone and vancomycin. A neck exploration, thyroid biopsy and tracheotomy were also performed. The thyroid gland and part of the adjacent anterior tracheal wall were noted to be necrotic during this procedure (figure 2). In the day following surgery, the patient was able to be weaned from the ventilator and transferred to a lower acuity surgical floor. Her TSH was 0.03 mIU/L and free T4 2.1 ng/dL on the eleventh hospital day. On the seventeenth hospital day, she was transferred to our institution for further evaluation.

REFERENCES