



# PALPATION THYROIDITIS: FACT OR FICTION

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## ABSTRACT

The purpose of this short communication is to present a case of palpation thyroiditis, the pathologic findings of multifocal thyroid granulomatous lesions in conjunction with a separate thyroid pathology, and reviewing the literature for other descriptions of this entity.

This entity is thought to arise in patients who have undergone vigorous palpation of the thyroid gland after thyroidectomy or other neck surgery such as radical neck dissection. It rarely causes thyroid dysfunction, although there has been a single case report of atrial fibrillation seen in a patient with palpation thyroiditis. This pathology is usually noted on pathologic review of a thyroidectomy specimen or at autopsy and is not suspected clinically.

## INTRODUCTION

Palpation thyroiditis is described as an inflammatory lesion within the thyroid gland with multiple granulomatous folliculitis.<sup>1</sup> It is thought to be secondary to injury or rupture of the thyroid vesicles by traumatic injury such as thyroidectomy or vigorous palpation of the thyroid gland. It occurs most commonly in the setting of multinodular goiter. In a review of 1,066 thyroidectomy specimens by Hwang and Park, there were 467 adenomatous goiters in which there found to be 275 cases of palpation thyroiditis.

Pathologically, it is described as a multifocal granulomatous thyroiditis. There are multiple small granulomas which are centered in disrupted thyroid follicles and usually composed of T-cell lymphocytes with macrophages and occasional multinucleated giant cells. It is reportedly common and is seen in as many as 85% of surgically resected thyroidectomy specimens. The differential diagnosis includes various fungi, sarcoidosis, or subacute thyroiditis.

Palpation thyroiditis could potentially be confused with deQuervain's thyroiditis. DeQuervain's thyroiditis, however, is termed giant cell or granulomatous thyroiditis and is a form of marked inflammation of the thyroid gland. It usually occurs several weeks after a viral upper respiratory tract infection and includes significant neck pain which may be worsened by swallowing. There are also complaints of referred otalgia.

The clinical significance of palpation thyroiditis is unknown. It has been described incidentally in patients undergoing thyroidectomy and also at autopsy in patients who have died in the hospital setting.<sup>1</sup> There is a published case of a 70-year-old male who

## INTRODUCTION CONT

underwent right radical neck dissection and subsequently developed acute onset atrial fibrillation which was thought to be a consequence of palpation thyroiditis. This patient developed symptoms of hyperthyroidism in addition to atrial fibrillation. The thyroid function normalized within two weeks, but the atrial fibrillation persisted and ultimately required cardioversion.<sup>5</sup> This entity has also been confused with neoplasia as noted in a report of a patient having a positive PET CT which was thought to be neoplastic and upon removal, the patient was found to have palpation thyroiditis.

## CASE REPORT

The patient, a 52-year-old white female was referred for evaluation of a right-sided neck mass. On ultrasound examination, she had a 4 cm right-sided thyroid nodule, there were no other lesions within the thyroid as noted by ultrasound examination. Fine needle aspiration suggested an adenomatous lesion. Her TSH and T4 were both normal at 3.43 and 1.0 respectively. Given the options of expectant observation or thyroidectomy as a form of grand biopsy based on the size of the nodule, the patient elected surgery. She was found to have a 2.6 cm follicular adenoma within the thyroid gland and also pathologic findings of palpation thyroiditis with focal, non-necrotizing granulomatous inflammation. (Figure 1) Thyroid antibodies in the form of thyroperoxidase (13 IU/ml) and anti-thyroglobulin antibodies (less than 1 IU/ml) were obtained and found to be normal thus excluding the possibility of an underlying thyroiditis.

## DISCUSSION

A case of palpation thyroiditis has been presented. The incidence of palpation thyroiditis is unknown. Although it has been termed as a common finding, in a pathologic review of 303 consecutive thyroidectomies performed by the author, only one case of palpation thyroiditis was found (the current case). The clinical significance is unknown, but is generally thought to be a histologic finding without clinical import. There has, however, been one reported case of new onset of atrial fibrillation thought secondary to palpation thyroiditis.

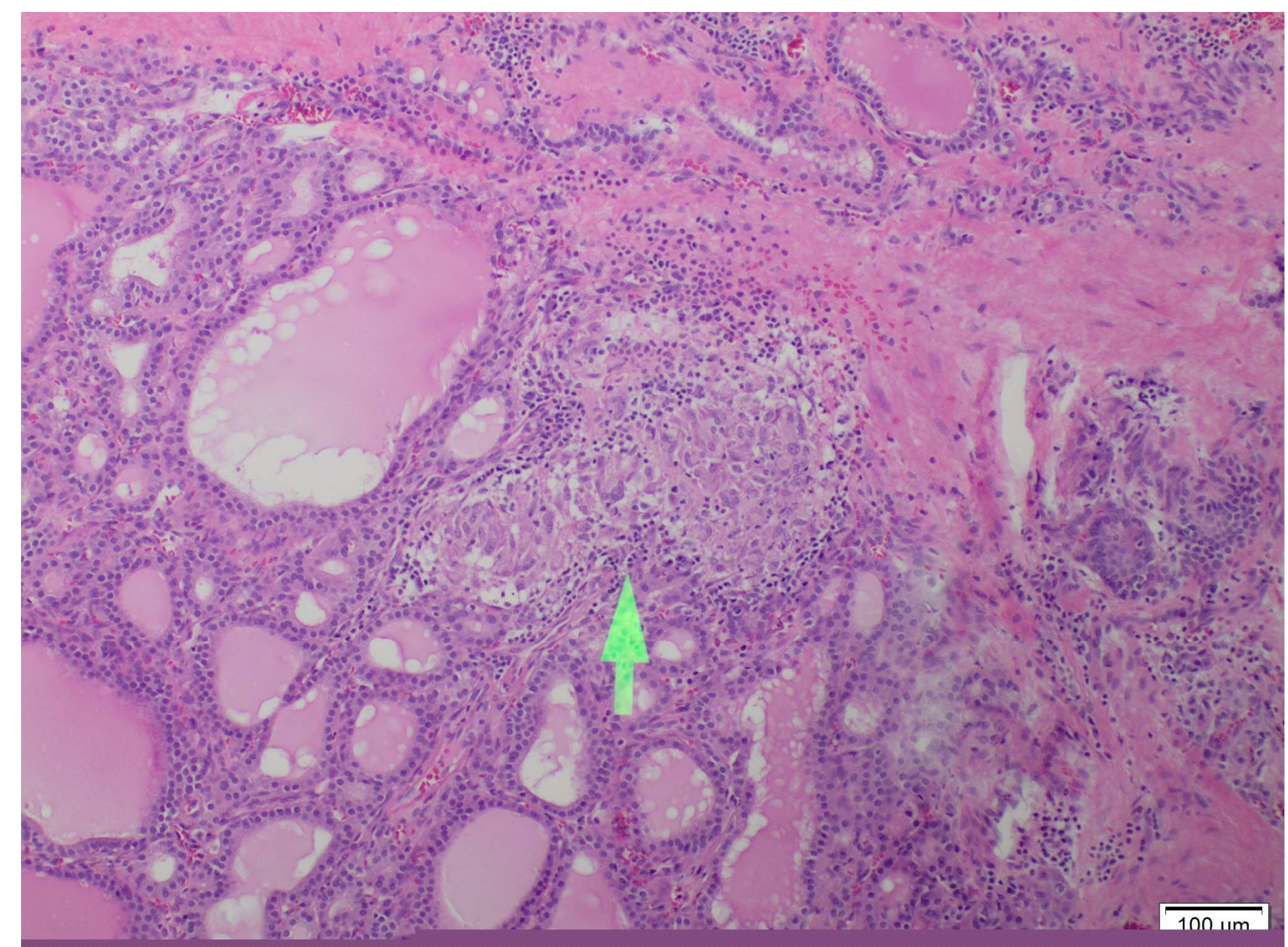
The obvious limitation of this presentation is the fact that it is a case report. There is scant evidence of palpation thyroiditis in the literature and thus is likely to be unfamiliar to

## DISCUSSION CONT

the Otolaryngologist- Head and Neck surgeon. It could be potentially confused with other types of thyroiditis, particularly deQuervain's, but this patient had no symptoms that suggested deQuervain's thyroiditis.

## SUMMARY

Palpation thyroiditis is an unusual pathologic entity seen primarily in patients undergoing thyroidectomy. Its clinical importance is not known, but is thought to be limited. The thyroid surgeon should be aware of this pathologic entity and its potential clinical implications.



**FIGURE 1**

H & E stain, 200X. Arrow indicates non-necrotizing granuloma with a background of intact thyroid follicles containing colloid.

## REFERENCES

1. Carney JA, Moore SB, Northcutt RC, Woolner LB, Stillwell GK. Palpation thyroiditis (multifocal granulomatous folliculitis). *Am J Clin Pathol.* 1975 Nov; 64(5):639-47.
2. Hwang TS, Park SH. Histopathologic study of the so called 'palpation thyroiditis.' *J. Korean Med Sci.* 1988 Mar; 3(1):27-9.
3. Islam S. Palpation thyroiditis. *Pathology Outlines.com*, 2 April 13.
4. Oláh R, Hajós P, Soós Z, Winkler G. DeQuervain thyroiditis. *Current Points of the diagnosis.* *Orv Hetil* 2014; 155 (17) 676-80.
5. Mai VQ, Glistler BL, Clyde PW, Shakir KM. Palpation thyroiditis causing new-onset atrial fibrillation. *Thyroid* 2008 May 18(5):571-3.
6. Blazak JK, Ravi K, Aravind S. Palpation thyroiditis seen on F-18 FDG PET/CT. *Clinical Nuclear Medicine* March 2011; 36(3):261-3