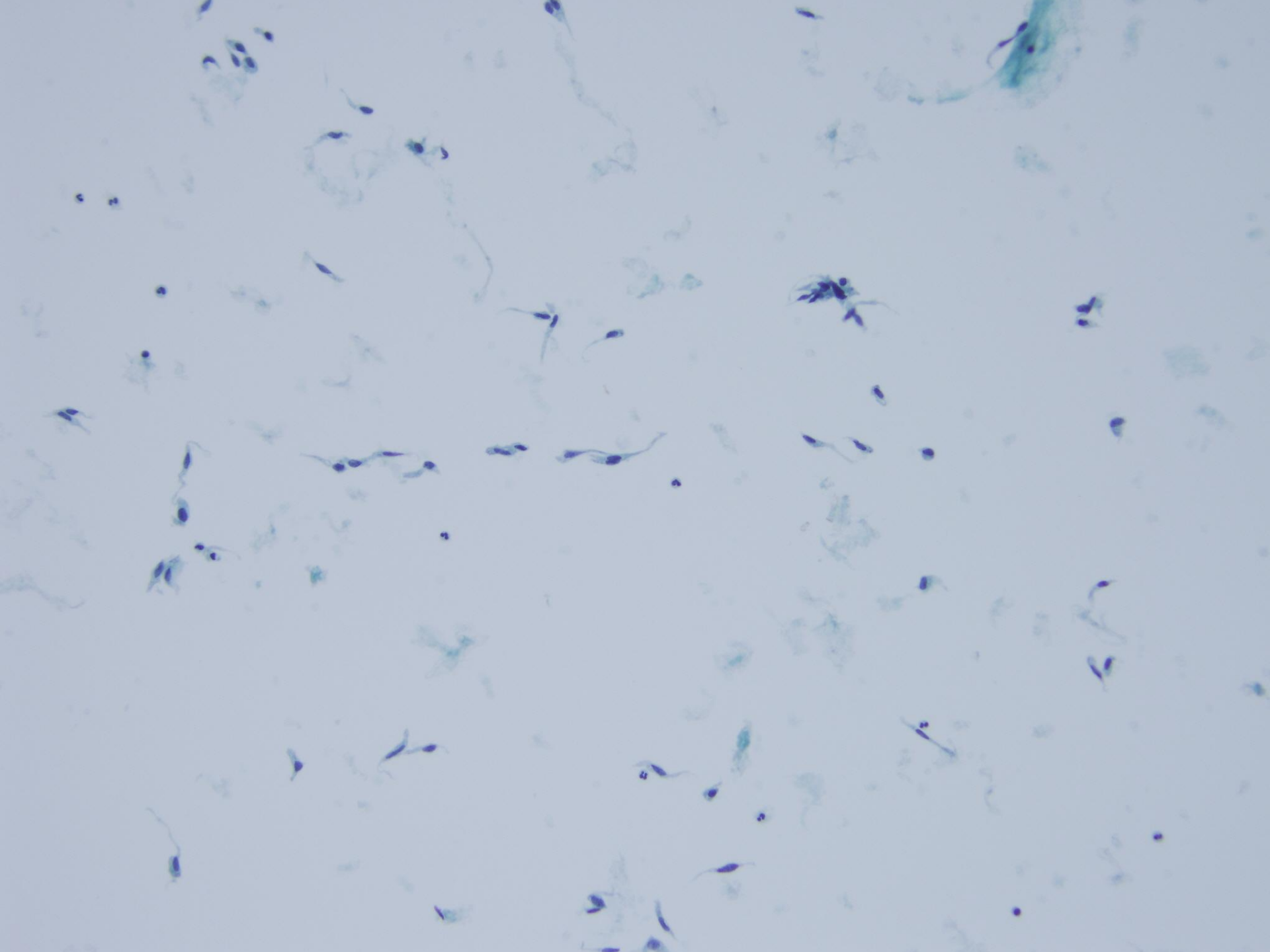


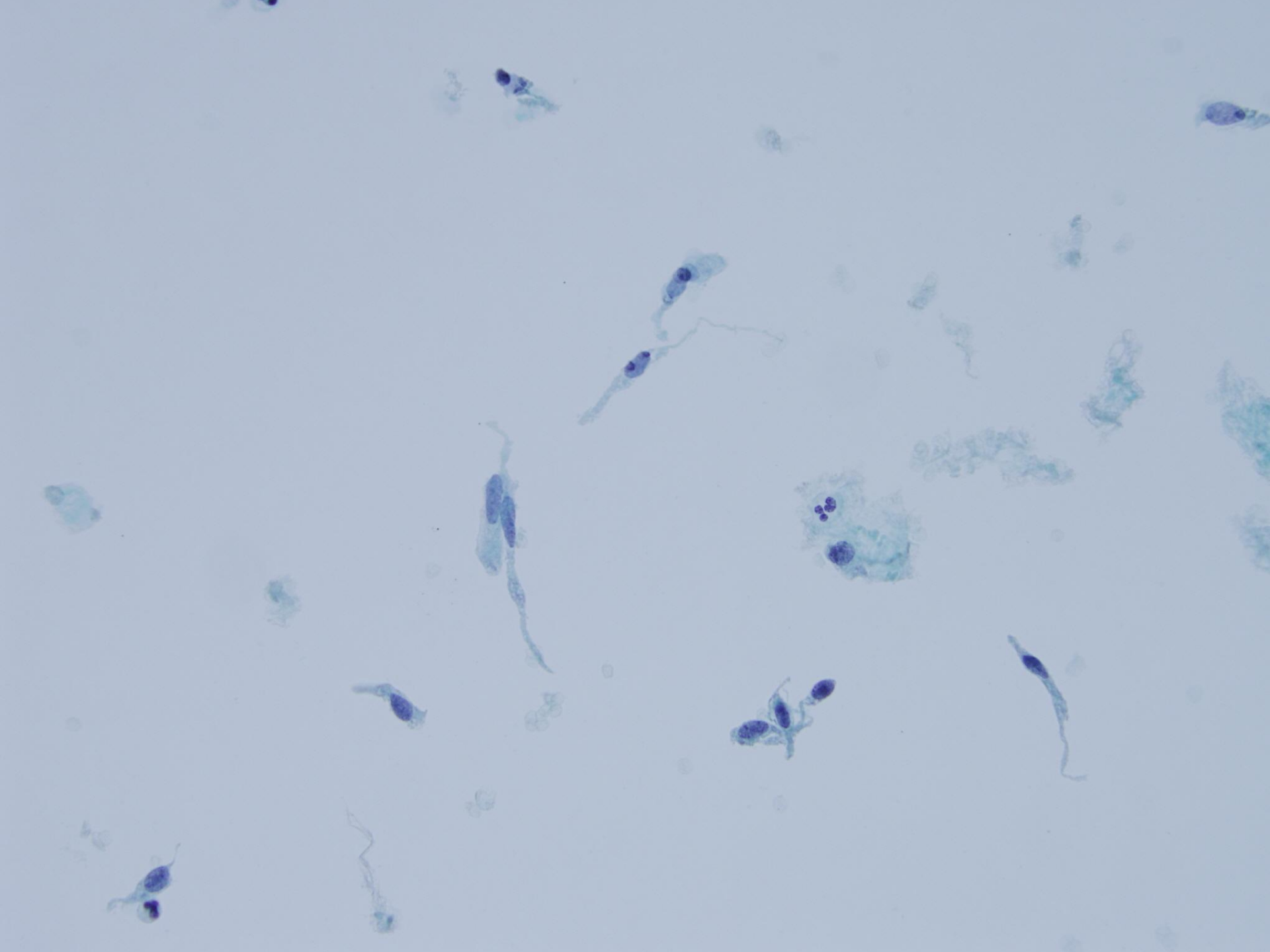
# Interesting case conference

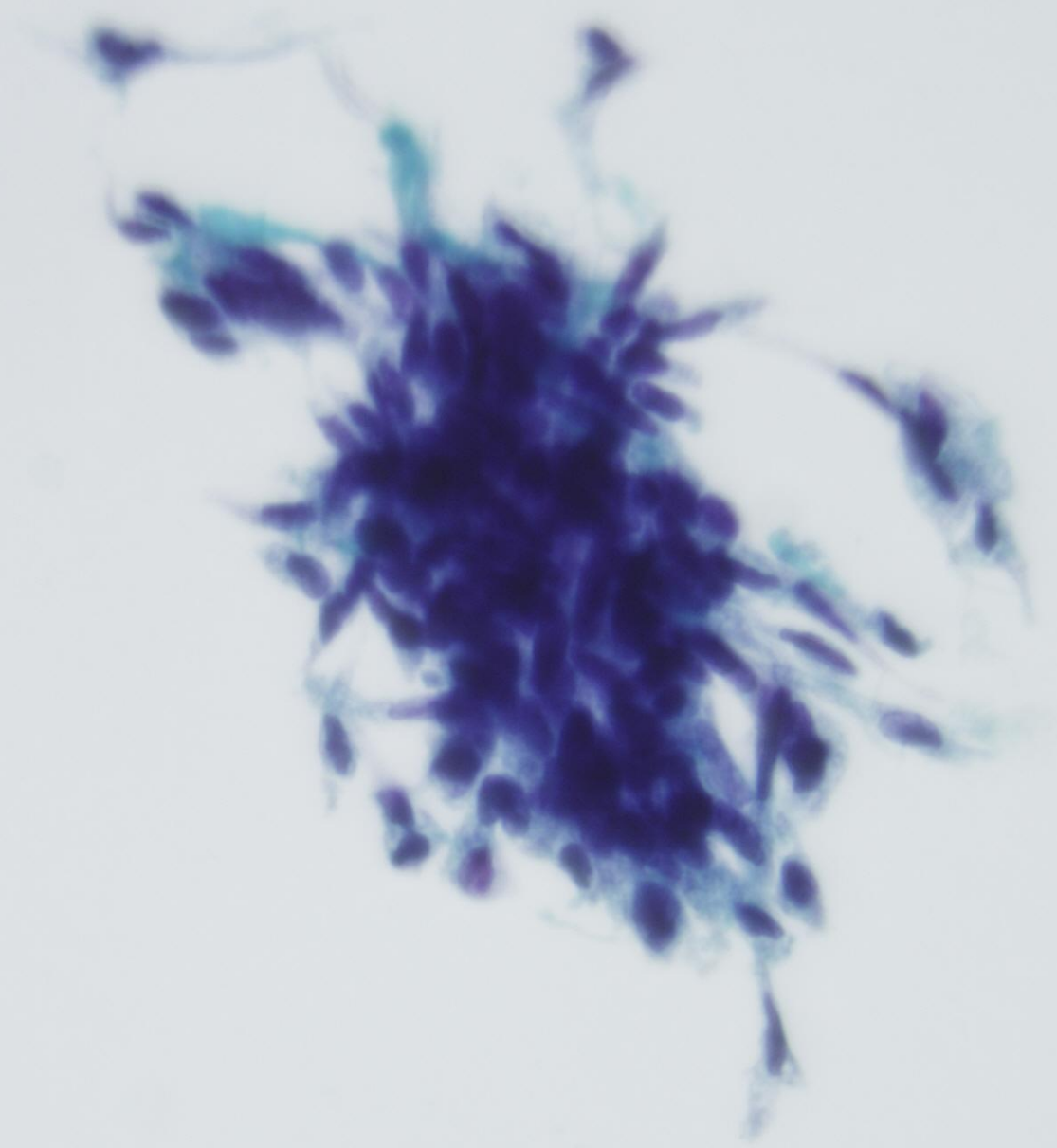
9/10/12

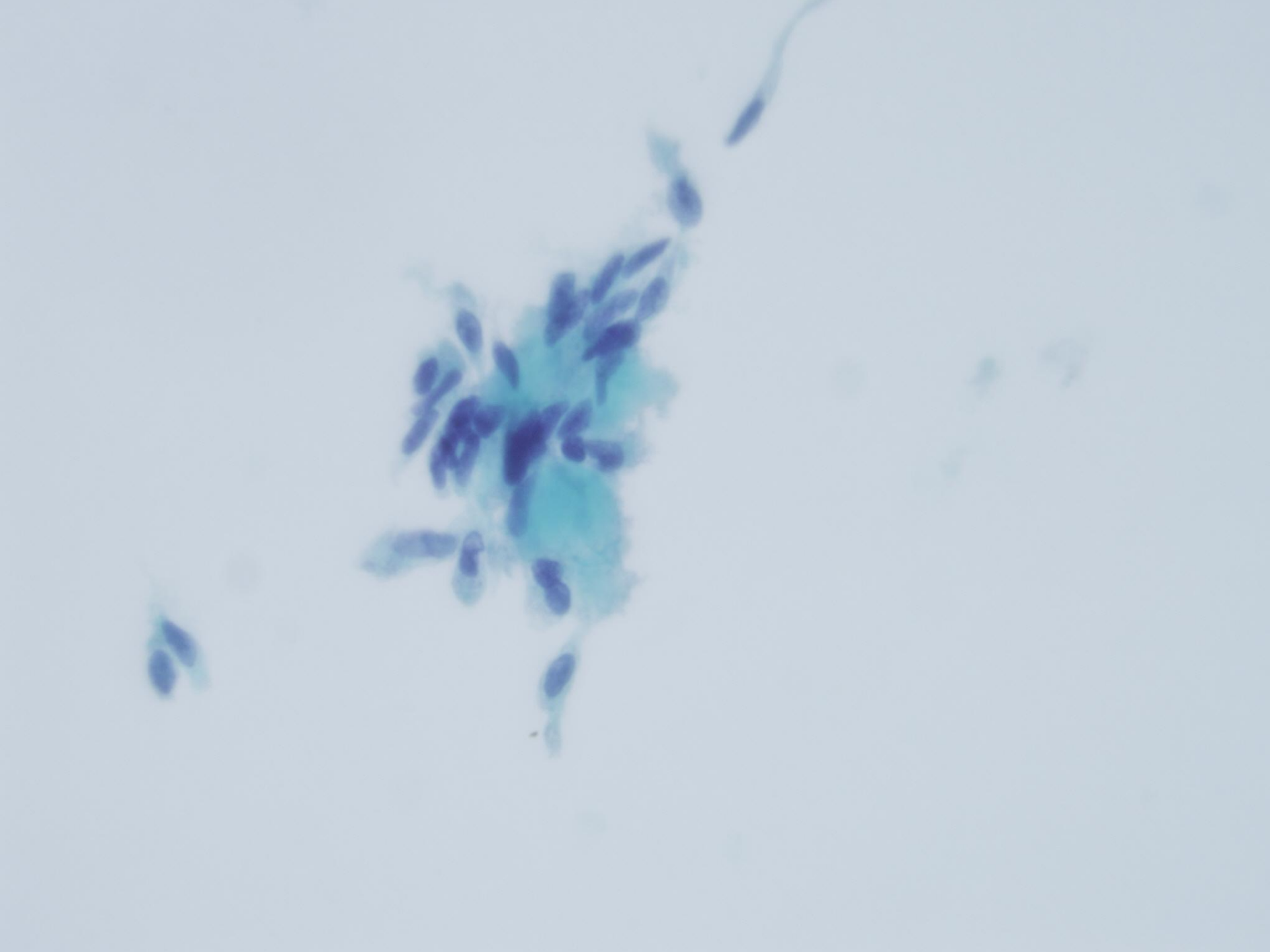
## Clinical Data:

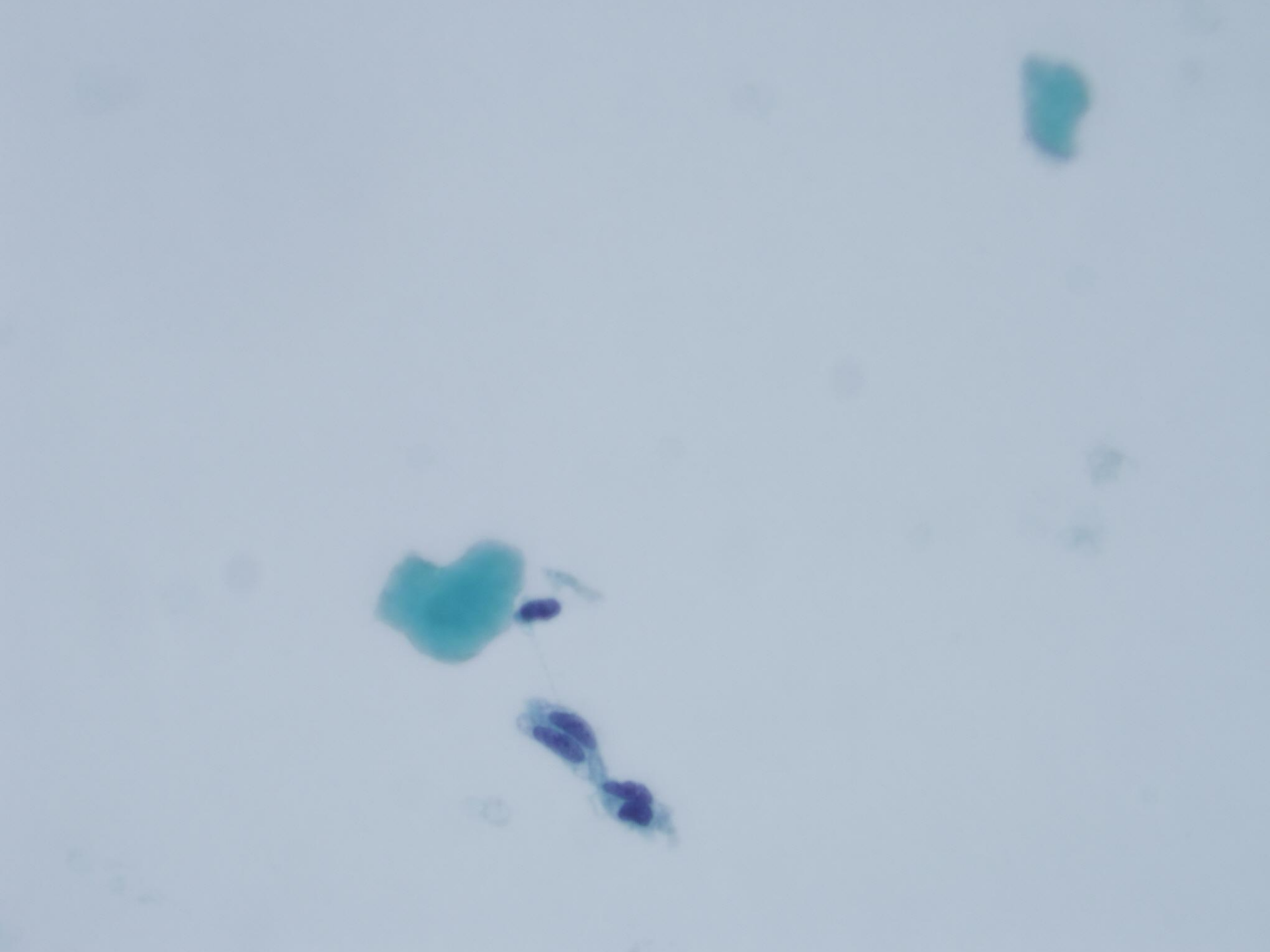
- Previously healthy 33-year-old female who noticed a right thyroid mass after experiencing one week of dry cough
- Thyroid function levels were normal
- Referred to an otolaryngologist who performed fine-needle aspiration on August 29, 2012

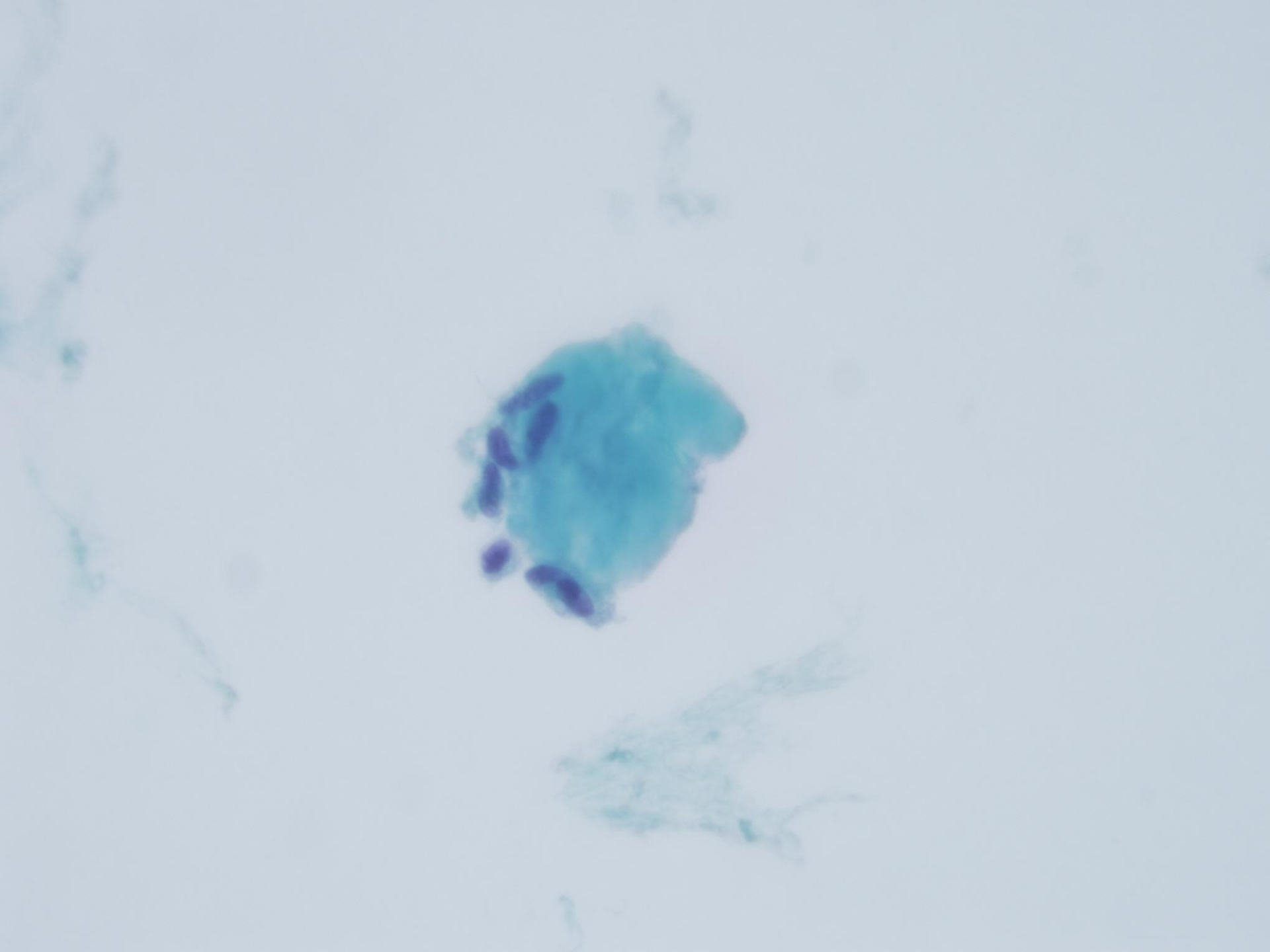














# FINAL CYTOLOGY

## MICROSCOPIC DIAGNOSIS:

1. Right thyroid, fine needle aspiration (JN12-94893; 8/29/12): Suspicious for medullary thyroid carcinoma. See COMMENT.

## COMMENT:

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Numerous spindle cells and material concerning for amyloid are present. Correlation with serum calcitonin levels may be helpful.

SERUM CALCITONIN

RESULT

1442

REFERENCE RANGE

< 12 pg/mL

# Summary of Medullary Thyroid Carcinoma

- 5-10% of all thyroid carcinomas, arises from parafollicular cells
- 80-90% sporadic, occur in adults (mean age 50 yrs). Rest occur in children in association with syndromes like MEN
- 90% secrete calcitonin
- Treatment=> total thyroidectomy with excision of regional lymph nodes

# Summary of Medullary Thyroid Carcinoma

- Predominantly isolated tumor cells, uniform in size and shape
- Cytoplasm moderate or abundant and finely granular
- Nuclei eccentrically placed (plasmacytoid appearance), some cases the cells are spindled and the cells look like a comet with a long cytoplasmic tail
- Coarsely granular salt-and-pepper chromatin with inconspicuous nucleoli
- Intranuclear inclusions
- Amyloid present in most but not all cases