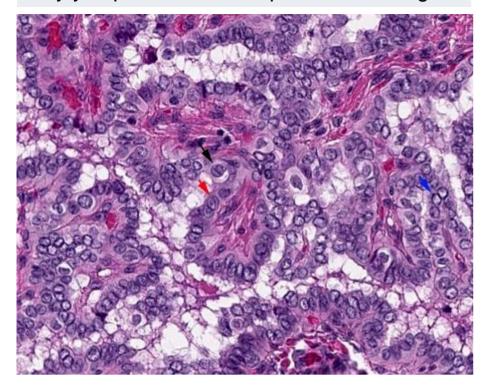
# **Thyroid**

### **Prompt**

May you please write a report for this image?



#### **GPT-4V**

Microscopic Analysis Report:

#### **Image Description:**

The image depicts a microscopic view of a tissue sample, which appears to be stained, likely using a hematoxylin and eosin (H&E) stain, a commonly used stain in histopathology. Observations:

- 1. **Tissue Architecture**: The sample shows glandular structures, suggestive of epithelial tissue. The arrangement and morphology of the cells suggest a possible section of a glandular organ.
- 2. **Cellularity**: Cells appear closely packed with varying sizes. The nuclei of the cells are prominently stained, indicating the use of the hematoxylin stain.
- 3. **Staining Pattern**: The eosinophilic regions (pinkish-red) suggest the presence of cytoplasm and extracellular components, while the basophilic regions (darker purple)

indicate nuclear material.

4. **Marked Areas**: Black Arrow: This points to a cell with a prominent nucleus. The significance of this marking depends on the context of the study or observation. Red Arrow: Indicates a structure or feature within the cell or tissue, but without additional context, the specific significance remains unclear. Blue Arrow: Like the red arrow, it points to a specific structure or cell. Further information would be needed to deduce its exact significance. **Preliminary Interpretation**:

Based on the provided image, the tissue appears to be of epithelial origin with glandular features. The marked areas suggest areas of interest or importance, but without additional context, it's challenging to determine the specific pathology or significance of these markings.

### **Prompt**

This is an image of thyroid tissue. What is most likely diagnostic result based on the image and report?

### **GPT-4V**

# **Possible Diagnostic Considerations:**

- 1. **Nodular Hyperplasia or Thyroid Adenoma**: Given the appearance of closely packed follicles and varying cell sizes, one possibility is nodular hyperplasia or a benign thyroid adenoma. These are noncancerous enlargements of the thyroid.
- 2. Papillary Thyroid Carcinoma: This is the most common type of thyroid cancer. One hallmark is the presence of cells with large, clear "Orphan Annie" nuclei, although it's challenging to definitively diagnose this based solely on one image.
- 3. **Follicular Thyroid Neoplasm**: It can be benign (follicular adenoma) or malignant (follicular carcinoma). A definitive diagnosis between these two often requires evaluation of capsular or vascular invasion, which may not be evident in the provided image.

# Reference answer

Papillary thyroid carcinoma: Classic variant has typical nuclear features of papillary thyroid carcinoma, e.g., nuclear enlargement, overlapping, marked nuclear membrane irregularity, nuclear groove (red arrow), nuclear pseudoinclusion (black arrow) and chromatin margination (blue arrow).