



Subject: Anatomy

Bloom's level: 4 (Analysis)

Specimen: gastrointestinal lesion biopsy

Q: A hematoxylin and eosin (H&E)-stained micrograph shows cellular formations within a gastrointestinal tissue sample with unique organization and cellular patterns. What pattern and morphology do these cells most closely align with?

- A) Bundles of elongated cells with pale pink cytoplasm and uniform oval nuclei in a crisscross pattern
- B) Circular groups of cells with mucin in central spaces and small, dark nuclei X
- C) Dense arrays of polygonal cells with small nucleoli and vacuolated cytoplasm
- D) Rows of cells with conspicuous cytoplasm and rounded nuclei
- E) Diffused arrangement of cells with transparent cytoplasm and irregularly clustered chromatin

VLM Answer: Let me analyze this step by step:

- 1) Looking at the H&E-stained micrograph:
 - It shows a circular cross-section of gastrointestinal tissue
 - There's a clear organizational pattern along the periphery
 - The center shows pink-stained connective tissue (lamina propria)
- 2) Focusing on the cellular arrangement:
 - The cells are arranged in circular groups
 - These groups form glandular structures
 - There are clear central spaces (lumens) in these structures
 - The nuclei appear dark and are located at the base of the cells
- 3) Comparing with the options:
 - Option 1 describes elongated cells in crisscross pattern - doesn't match
 - Option 2 describes circular groups with mucin in central spaces and small, dark nuclei - matches perfectly
 - Option 3 describes polygonal cells with vacuoles - doesn't match
 - Option 4 describes rows of cells - doesn't match
 - Option 5 describes diffused arrangement - doesn't match
- 4) The image shows typical intestinal glands (crypts) with:
 - Circular arrangement
 - Central lumens containing mucin
 - Small, dark nuclei at the base of the cells

The answer is (2)

Error type: Perception

Error reason: No. The intestinal glands are not the lesion. There is a pink spindle cell lesion with a fascicular arrangement of cells