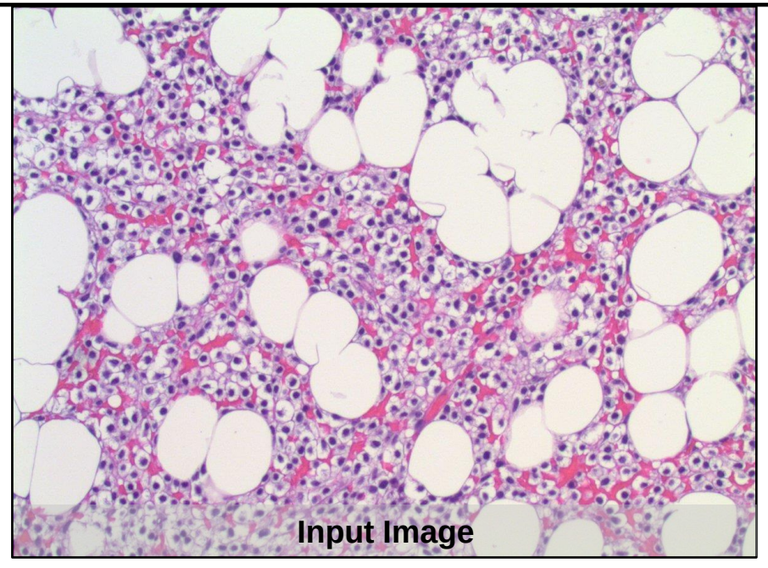


Question: Based on the microscopic examination of the hematopoietic tissue sample, which characteristic is suggestive of hairy cell leukemia (HCL)?

A) Cells with hypersegmented

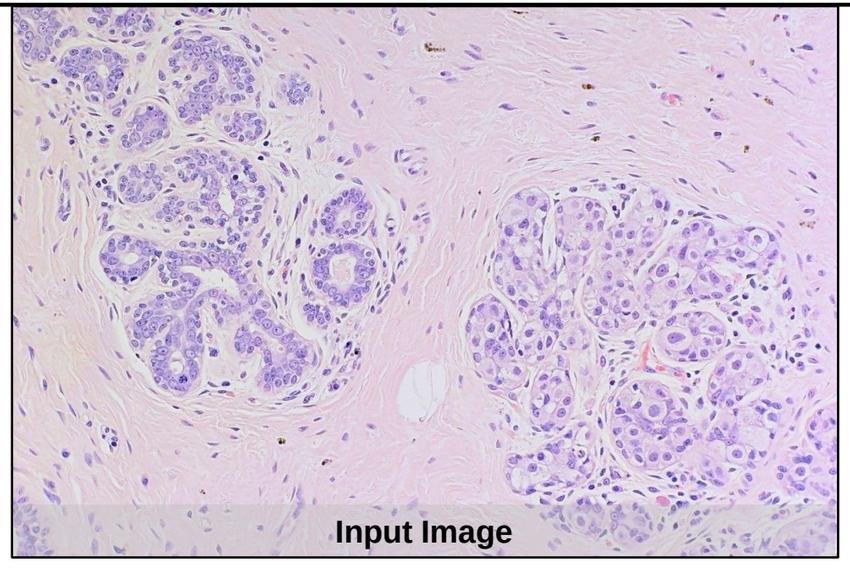
B) Large cells with multiple nuclei and dense cytoplasm

C) Cells with light-blue cytoplasm and eccentrically placed nuclei with fine hairy

D) Cells with brightly eosinophilic cytoplasm and central nuclei

Answer: C) Cells with light-blue cytoplasm and eccentrically placed nuclei with fine hairy projections

Explanation: The cells characteristic of hairy cell leukemia (HCL) have oval to indented nuclei with dispersed chromatin, inconspicuous nucleoli, and abundant light-blue cytoplasm with fine projections giving them a 'hairy' appearance, which matches the description given for option C.



Question: Based on the cellular morphology observed in the image of breast tissue, what feature is most indicative of a high-grade malignancy?

A) Distended acini with a prominent central lumen

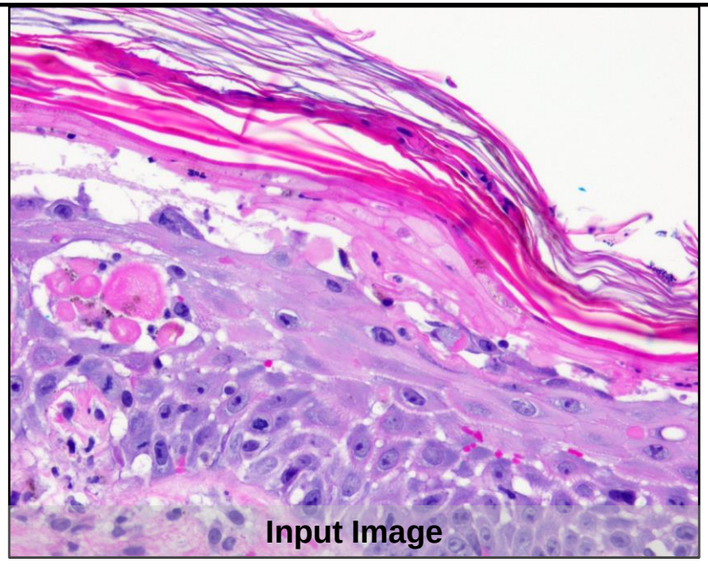
B) Monotonous population of cells with large, hyperchromatic, pleomorphic nuclei

C) Well-defined spaces and uniform cells with small, regular nuclei

D) Presence of abundant eosinophilic stromal tissue

Answer: B) Monotonous population of cells with large, hyperchromatic, pleomorphic nuclei

Explanation: The image shows distended acini that lack a central lumen and are filled with a monotonous population of cells characterized by large, hyperchromatic, pleomorphic nuclei. These features are indicative of a high-grade malignancy, as they reflect a significant variability in nuclear morphology and a disturbance in the normal acinar architecture, which is typical of ductal carcinoma in situ (DCIS). Options A, C, and D do not describe the malignant features present in this image.



Question: Based on the morphological features observed in the image, which of the following best describes the changes in the epidermis?

A) Hyperkeratosis with extensive acanthosis

B) Parakeratosis with retained nuclei in the superficial layer

C) Complete absence of the stratum

D) Psoriasiform hyperplasia

Answer: B) Parakeratosis with retained nuclei in the superficial layer

Explanation: The retained nuclei in the stratum corneum evidenced in the image indicates parakeratosis, which is commonly associated with inflammatory skin conditions. There is no evidence of extensive acanthosis, absence of the stratum corneum, or psoriasiform hyperplasia in the image.