

A-64. Observations on the Ultrastructure of Craniopharyngiomas.

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Five craniopharyngiomas of adamantinomatous types were studied by means of light and electron microscopy.

The tumors were composed of epithelial cells, connective tissue stroma, cysts, keratinizations, and calcifications.

Results obtained were as follows:

1. Epithelial cells were divided in three layers.

These cells were similar to that of stratified squamous epithelium. The tumor cells showed desmosomes, halfdesmosomes, tonofilaments, glycogen granules, mitochondria, microvillous projection, keratohyalin like granules etc.

2. Cysts were formed from coalescence of massively extracellular spaces and degenerative of the connective tissue stroma. Cysts contained cholesterine crystals.

Foam cells phagocytosed cholesterine crystals.

3. Keratinizations were dyskeratosis, mainly and occurred at random. Cells of dyskeratosis contained tufts of tonofilaments with calcium deposits and contained aggregates of electron dense crystalloid structures resembling hydroxyapatite crystals and lipids in cytoplasm.

4. Calcification was classified in diffuse calcification and amelogenesis. Diffuse calcifications revealed calcium deposits in the cytoplasm of cornified cells. Amelogenesis revealed enamel droplets and enameloid which may be a calcified keratinous substance. Enameloids showed lamellar pattern and radiodensity. Diffuse calcifications were dystrophic calcifications.

A-65. Ultracytochemistry of Human Pituitary Adenomas

—With Special Reference to Function of Lysosomal System—

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This study was done to explore the ultracytochemical activity of acid phosphatase