Ultrasound Evaluation of Intraocular Tumors

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B-scan

Acoustic Characteristics

Topography
- Shape
- Location
- Extension
- Estimate of size
A-scan
Acoustic Characteristics

Differentiation:
- Structure (cell distribution)
- Reflectivity (cell size)
- Consistency
- Vascularity
- Precise size
Melanoma

• Solid
• Dome or collar button shaped.
• Regularly structured.
• Low to Medium reflective.
• Vascular
Ultrasound features following radioactive plaque therapy

- Decreased elevation.
- Increased reflectivity
- Decreased vascularity
Differential Diagnosis

- Metastatic tumors
- Choroidal Hemangioma
- Choroidal Osteoma
- Choroidal Nevus
- Melanocytoma
Metastatic Tumors
Acoustic Characteristics

• Irregular structure and reflectivity
• Minimal elevation with a central area of excavation
• Little or no vascularity
• Solid consistency
Choroidal Hemangioma
Acoustic Characteristics

- Regular internal structure.
- High reflectivity.
- Solid consistency.
- No vascularity.
- Dome shaped, usually at the posterior pole.
Choroidal Osteoma
Acoustic Characteristics

- Extremely high reflectivity with an acoustic shadow.
- Solid consistency.
- Plaque-like appearance.
Melanocytoma
Acoustic Characteristics

- Regular internal structure.
- High reflectivity
- Solid consistency.
- No vascularity.
- Dome shape, over the optic disc.
Choroidal Nevus
Acoustic Characteristics

- Regular internal structure.
- High reflectivity.
- Solid consistency.
- No vascularity.
- Minimally elevated.
Pseudo tumors

- Disciform lesions.
- Localized choroidal detachment.
- Dislocated lens/lens nucleus
- Retinoschisis with hemorrhage.
- Posterior nodular scleritis.
- Ampulla of vortex vein.