ULTRASTRUCTURAL DESCRIPTIVE TECHNIQUES

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Identify the Tissue
- Analyze cell
  - Cell shape
  - Membrane and attachments
  - Organelles
  - Polarity
- Tissue organization
  - How are cells organized?
  - Are there other structures present (ducts, basement membranes, etc.)?

MORPHOLOGIC DESCRIPTION
- Tissue
- Pathologic changes
- Presence or absence of cell structures, presence of infectious agents, etc.
- For example: Liver, hepatocytes: degeneration, with intranuclear virions.
- Difficult to access severity
General Cellular Anatomy
What's your diagnosis?
1. Subepithelial (acute glomerulonephritis)
2. Epimembranous (membranous glomerulonephropathy or Heymann glomerulonephritis)
3. Subendothelial (lupus nephritis and membranoproliferative glomerulonephritis)
4. Mesangial deposits (IgA nephritis)
5. Basement membrane

From the 8th edition of Robbins and Cotran
What's your diagnosis?

Respiratory
What's your diagnosis?
Nervous
What's your diagnosis?

Cardiovascular
What's your diagnosis?
What’s your diagnosis?

Musculoskeletal
Hematolymphatic
INFECTIOUS AGENTS

- Where is it?
- What shape is it?
- What size is it?
VIRUSES
TEXTBOOKS

- Wheater’s Function Histology, 5th ed., 2006
- Cheville’s Cellular Pathology, 2nd ed., 1994
- Ghadially’s Ultrastructure of the Cell and Matrix – 1988