Key Differential Diagnosis Issues

- Most lesions are benign; key is to detect gallbladder (GB) carcinoma early
- Carcinoma: Large irregular soft tissue mass
  - Circumferential or eccentric wall thickening ± internal color flow
  - Ill-defined margin, infiltration of gallbladder wall and adjacent liver parenchyma
  - Presence of regional nodal/liver metastases

Helpful Clues for Common Diagnoses

- **Gallbladder Cholesterol Polyp**
  - Usually 2-10 mm in size
  - Multiple, small, nonshadowing lesions with soft tissue echogenicity
  - Smooth in contour, sometimes multilobulated in outline
  - Round or ovoid shape; broad base is attached to gallbladder wall
  - Nonmobile on decubitus positioning
  - Overlying GB wall is intact and normal
  - Cholesterolosis: Diffuse nodular wall thickening from cholesterol deposits
- **Hyperplastic Cholecystosis (Adenomyomatosis)**
  - Tiny echogenic foci within thick GB wall with "comet tail" artifacts
  - Fundal adenomyomatosis: Smooth sessile mass/thickening in fundus
    - » Look for comet tail artifacts/color Doppler twinkling artifact
  - Diffuse adenomyomatosis: Diffuse wall thickening with tiny intramural diverticula
  - Segmental form: Wall thickening of midportion to fundus with hourglass appearance
- **Adenomatous Polyp**
  - Larger size (> 10 mm), solitary lesion
  - Usually pedunculated in appearance

Helpful Clues for Less Common Diagnoses

- **Gallbladder Adenocarcinoma**
  - Asymmetric GB wall thickening
  - Intramural polypoid mass protruding into gallbladder lumen
  - Ill-defined infiltrative mass in gallbladder fossa
  - Invasion of adjacent liver parenchyma: Indistinct separation between GB mass and liver capsule
  - Presence of regional nodal/liver metastases ± intratumoral vascularity
- **Metastases to Gallbladder**
  - Most common: melanoma, renal and breast cancer
  - Usually have other metastases
  - Multiple, sessile, hypoechoic, internal color flow
- **Other Primary Gallbladder Neoplasms**
  - Epithelial and nonepithelial benign and malignant tumors such as leiomyoma, leiomyosarcoma
  - Varied appearances