**Solid Organ Masses, Lymphadenopathy, and Implants**

**Teaching Points**

In this lesson the student will become familiar with the various masses found in solid organs in the abdomen and pelvis. After identifying the abnormality, the participant will learn how to use CT features to characterize the lesion/mass to build a diagnostic differential based on its appearance.

The student will have the opportunity to become familiar with various lymph node stations in the abdomen and Pelvis and identify enlarged lymph nodes as well as other potential metastatic sites such as peritoneal, mesenteric and omental implants.

Topic is Large so the student should plan to review only selected videos and case files in 1 or 2 areas of interest (liver, Kidney, adrenal, pancreas etc..)

**Liver Tumors and Diffuse disease:** The more common tumors we see in the Liver will be covered in this section. The fundamental question is: “Does the Patient have Cirrhosis or Hep B” The DDx is separate and distinct based on this clinical presentation

Video: <https://www.youtube.com/watch?v=3o0F1aDe8e0>

1. Deposition disorders/Diffuse Liver Disease: Hemochromatosis, Fatty Liver, Cirrhosis
2. Tumors/Masses in a Non-Cirrhotic Patient: Hemangioma, FNH, Hepatic Adenoma, Cyst, Abscess
3. Tumors to consider in a Cirrhotic Patient: HCC, CholoangioCA

**Biliary diffuse disease and Tumors:**

Video: <https://www.youtube.com/watch?v=9THRvgtNBLY&t=2565s> Tumors starts at video time 20 min 30 seconds

1. Cholangitis—Bacterial, PSC
2. Choledochal Cysts
3. Gallbladder: polyps and Adenocarcinoma
4. Cholangiocarcinoma: mass forming, periductal, intraductal

**Pancreas**: identify different appearances of the pancreas, identify lesions and learn typical CT appearances of some pancreatic lesions.

Pancreatic cysts Part 1 <https://www.youtube.com/watch?v=oK4oJfUJ48A>

Pancreatic Cysts Part 2 <https://www.youtube.com/watch?v=JPpj-tpydmc>

Pancreatic Cysts Part 3 <https://www.youtube.com/watch?v=pyS9tBmHdt4&t=20s>

Solid pancreatic masses<https://www.youtube.com/watch?v=GgeEqWXXHuY&t=234s>

**Adrenal Glands:** identify different appearances of the adrenal glands and learn typical CT appearances of some adrenal lesions.

Adrenal Gland Tumors Non Radiology review: <https://www.youtube.com/watch?v=hxCULy9y7v0>

Adrenal Gland Protocol: [How to read an adrenal protocol CT scan - adrenal washout - YouTube](https://www.youtube.com/watch?v=YFT8eBlONo0)

Management of incidental Adrenal lesions: <https://www.youtube.com/watch?v=TcGt-S37eRE&t=1018s>

[Imaging of the Adrenal Glands Dr. Muinov - YouTube](https://www.youtube.com/watch?v=xEFjE4u9kms)

**Kidney/Bladder:**

Bosniak Classification of cysts. This is a way to look at a cyst and determine the risk of malignancy use with CT or MRI (Not with US)

Review articles:

<https://pubs.rsna.org/doi/10.1148/radiol.2019182646> (I like this the best as review before video)

[rg.2021200160 (rsna.org)](https://pubs.rsna.org/doi/pdf/10.1148/rg.2021200160) (I find this less helpful than first review article)

Videos:

[Bosniak classification of renal cysts - YouTube](https://www.youtube.com/watch?v=6HFQbx1Ac40)

[Revising the Bosniak Classification-- Nicole Hindman, MD (SABI 42nd Annual Course) - YouTube](https://www.youtube.com/watch?v=LNwnOMiHdq4&t=407s)

Renal Cell CA : Type Clear cell, Papillary, chromophobe, Oncocytoma, AML

Video: [Diagnostic Radiology Concepts: Renal Tumors - YouTube](https://www.youtube.com/watch?v=UKq52p-q5w8)

Urothelial Carcinoma: [CT Abdomen Bladder tumor discussion by Radiologist - YouTube](https://www.youtube.com/watch?v=caRVzo_2288)

**Spleen:**

Managing Splenic lesions Part 1: **<https://www.youtube.com/watch?v=n_6zeH7HMQU>**

Managing Splenic lesions Part 1: <https://www.youtube.com/watch?v=jZCQkecHzGE&pp=sAQA>

**Gastric Tumors:**

**Videos:** [carcinoma stomach imaging - YouTube](https://www.youtube.com/watch?v=1PHF_KogIQw)

[Gastric GIST Tumors: Pearls and Pitfalls - Part 1 - YouTube](https://www.youtube.com/watch?v=tp8RtLQqr3M)

**GIST**—mesenchymal tumor 70% in stomach; no lymph node enlarment, malignant ones typically >10cm with ulcerations associated with extra adrenal pheochromocytomas (carneys triad)

**AdenoCA**—will have lymphnodes, invade can be due to H pylori; when goes to ovary—Krukenberg; when diffuse then linitis plastica (scirrhous)

**Lymphoma**—when primary called MALT, if systemic then usually non-Hodgkin, wont obstruct and can rupture with treatment

**Small Bowel Tumors:**

**Videos:** [Small Bowel Masses - YouTube](https://www.youtube.com/watch?v=amrUrFdsLN8)

**Adenocarcinoma**—duodenum most common

**Lymphoma**—Non Hodgkins. Patients at risk: Crohn’s, AIDS, SLE; does not obstruct.

**Neuroendocrine**—Most common in distal ileum. Usually don’t get the flushing/diarrhea until met to liver. Serotonin degrades the tricuspid valve so get regurgitation.

**GIST-** endophytic or exophtic

**Mets**- melanoma

Trivia: Chronic dialysis patients can get severely thickened duodenal folds, not to mistaken for tumor

**Large Bowel Tumors:**

Adenocarcinoma: Risch side present with bloody stools. Left tend to obstruct. Apple core lesion

Squamous Cell: Think HPV

Adenoma: Most common benign Tumor

**Rectal/Anal Tumors**: Will be covered in MRI elective.