Sonographic Signs

Triton College Sonography Day
Feb. 1, 2014

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Learning Objectives

• Identify sonographic signs that can help in defining normal and abnormal structures
• Analyze some unusual sonographic findings for pathologies.
• Demonstrate a new tool to enhance your sonographic knowledge

Abdominal Sonography Signs

Classic signs in Sonography, when invoked, immediately bring an image to mind and add confidence in making a diagnosis

Seagull

Playboy Bunny/Moose

Mickey Mouse
Ballerina

WES Sign - Wall Echo Shadowing

Courvoisier's Sign

Double Track/Donut Sign

Doughnut Sign/Crescent Sign/Bull's-Eye/Pseudokidney Sign

Intussusception Case Presentation

- A 4 month old male baby came in with uncontrollable crying and jelly like stool.
- Ultrasound findings: in the transverse plane there is a target shaped lesion with a multilayered appearance, in the longitudinal plane there are hypo echoic layers on each side of an echogenic center.
Caput Medusa - Portal Hypertension

Head of Twisting Snakes

Starry Night

Acute Hepatitis

Target Sign

Crohn's Disease - Echogenic center with a hypoechoic rim > 5

Bull's Eye

Mets to Liver

Varying Appearances of Liver Mets

Faceless Kidney

Transitional Cell Ca - Missing the typical sinus signature

Bear's Paws/Claws

Dilated renal calyces w/normal renal pelvis
Xanthogranulomatous pyelonephritis
Candle Sign

Low continuous ureteral jet flow that is seen with a partial ureteral obstruction or a ureterocele

Keyhole

Seen in males with posterior urethral valves

Clinical Signs

Gray-Turner’s Sign (Pancreatitis)
A bluish discoloration that occurs on the lower back and abdominal flanks. Usually occurs 6-24 hours after onset of any retroperitoneal bleeding

Cullen’s Sign (Pancreatitis)
A bluish or blue-black discoloration around the umbilicus. Often appears 1 to 2 days after the onset of symptoms of pancreatitis.

Clinical Signs

Gray-Turner
Gray-Turner’s sign is located when you TURN towards your flank. Cullen’s sign is located around the Umbilicus.

Clinical Signs

Cullen’s
Gray-Turner

Clinical Signs

Kehr’s Sign
(Splenic Injury / ruptured ectopic)
Severe left shoulder (tip) pain following injury to the spleen or a ruptured ectopic pregnancy.

Baillance’s Sign
(Splenic Injury)
Dullness on percussion of the left upper quadrant of the abdomen due to collection of blood in the subcapsular or extracapsular layers of a ruptured spleen
23 y/o G4 P2 presents to the ER in her 1st trimester of pregnancy complaining of pelvic pain & vaginal bleeding x2 days, along with symptoms of vomiting, nausea, cramps, and back pain for 1 week.

BHCG: 475,642

Ultrasound findings:
- Enlarged and echogenic uterus measures 14.3x10x14.4 cm.
- A heterogeneously hypoechoic solid & cystic appearing mass like structure fills the endometrial cavity.
- Multiple small hypoechoic cystic cavities dispersed throughout with increased vascularity.
- Visualization of the ovaries was limited.
Case Presentation

Diagnosis – Complete Hydatidiform Mole

Lemon Sign

Anterolateral collapse of the fetal skull
Marker for spina bifida in 2nd trimester

Case Presentation

26 y/o, G: 1, P: 0, A: 0
Initial ultrasound performed at 20w6d at a different facility. Patient referred to high risk clinic for suspected fetal anomaly after 20 week anatomy scan

Dandy-Walker malformation with ventriculomegaly

Banana Sign

Arnold Chiari II Malformation

www.healthofchildren.com
www.fetalultrasound.com
Ring of Fire

Tip of the Iceberg

Dermoid
Normal ovary

Waist Sign

Vascular Sonographic Signs

Normal Anatomy
Banana Peel
Aorta, RRA, LRA
**Wishbone Sign**

![Image of Wishbone Sign](http://www.ultrasound-images.com)

**String of Beads**

- Fibromuscular dysplasia of the ICA

![Image of String of Beads](http://www.cardiovascularultrasound.com/content/2/1/7)

**Ying Yang**

![Image of Ying Yang](http://www.totalhealthcare.com)

**Temporal Tap**

- Without Tap
- With Tap

![Image of Temporal Tap](http://www.ultrasound-images.com)

**Thread Sign**

![Image of Thread Sign](http://www.mathworks.com)