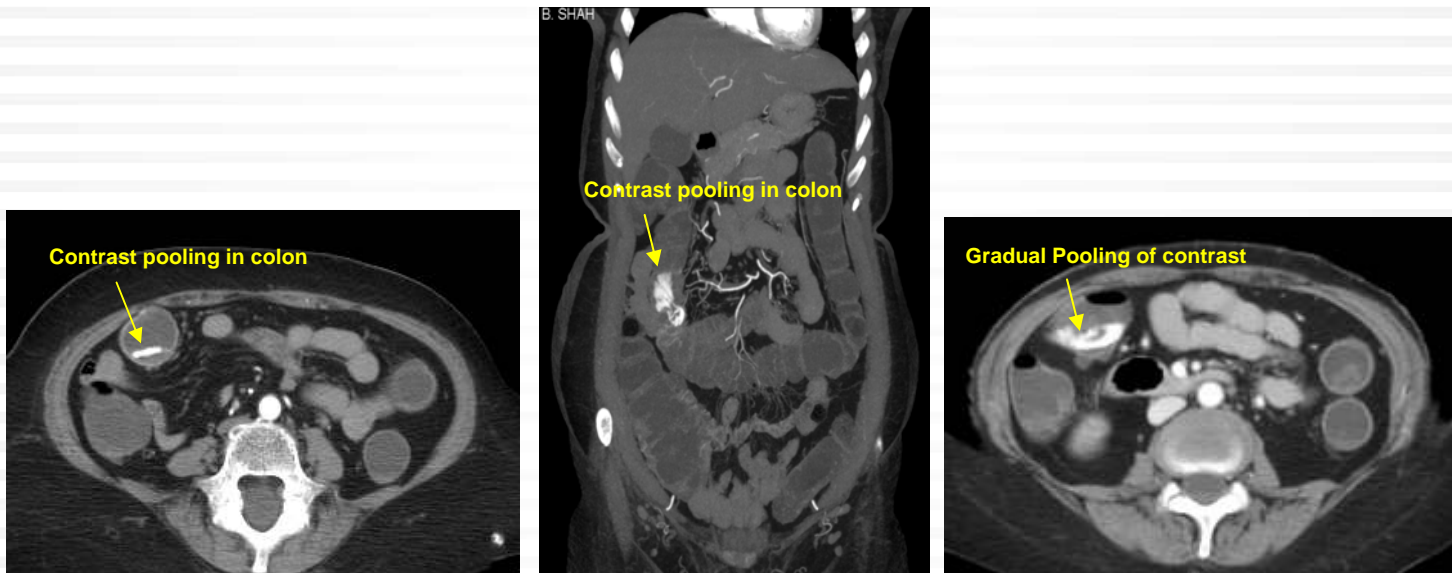




CASE STUDY 1

History : 70 years old female came with history of bleeding per rectal since 3-4 days with significant decrease in hemoglobin level. On colonoscopy examination there were multiple diverticuli in the colon, but bleeding site could not be identified. She was advised for CT -Abdominal Angiography.



Axial image of Arterial phase

Coronal image of Arterial phase

Axial Image of Venous Phase

CT scan findings:

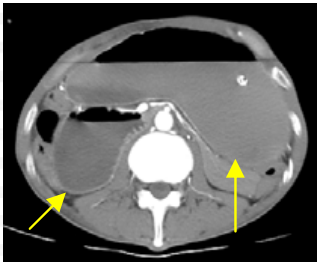
MDCT with Mesenteric Angiography revealed evidence of active vascular blush from distal most marginal branches (vasa recta) of middle colic branch of SMA along proximal transverse colon with gradual contrast pooling in lumen during venous and delayed phases.

Colonic Diverticular Hemorrhage

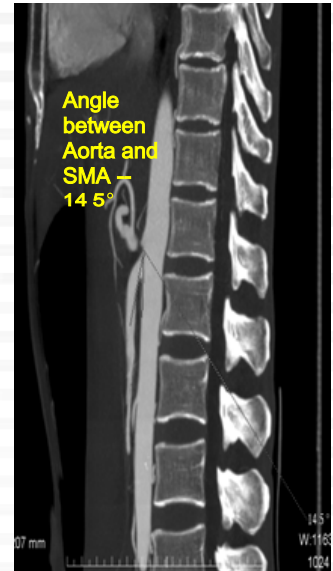
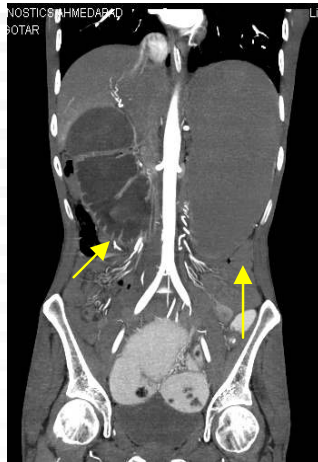
Colonic diverticular hemorrhage presents with massive rectal bleeding without pain. Incidence of bleeding is variable in the patients with diverticulosis, ranging from 10-40%. In most of the cases bleeding site is located in the ascending colon. Bleeding is not related with diverticulitis. CT Angiography reveals pooling of contrast medium in the bowel lumen.



History : A young male patient presented with H/O upper abdominal pain and recurrent vomiting since 2 months. He was advised for CT scan of Abdomen-pelvis.



Arrows in axial and coronal images show dilated proximal duodenum and stomach



CT scan findings:

CT scan revealed reduced mesenteric angle and distance between SMA & Aorta with localised compression over 3rd part of duodenum and resultant marked dilatation of proximal duodenum and stomach. Distance between aortal and SMA was 3.4 mm and SMA angle measures about, 14.5 degree.

Superior Mesenteric Artery (SMA) Syndrome

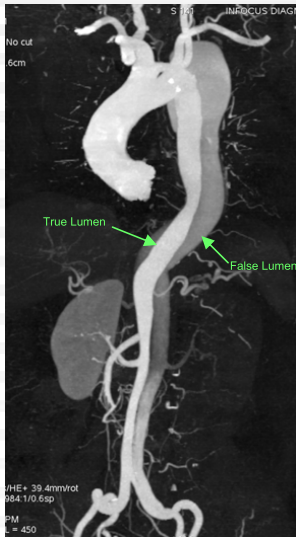
(body cast syndrome, Wilkie syndrome, chronic duodenal ileus)

- SMA syndrome is caused by vascular compression of 3rd part of duodenum between aorta and superior mesenteric artery (SMA).
- Normal angle between Aorta and SMA is 45-65 degree.
- Causes : weight loss, loss of abdominal muscle tone, asthenic build, exaggerated lumbar lordosis, prolonged bed rest in supine position.
- Clinical features : upper abdominal pain with recurrent vomiting.
- CT Scan & Barium meal can reveal
 - (1) Megaduodenum, i.e. pronounced dilatation of 1st & 2nd part of duodenum and stomach which is best seen in supine position.
 - (2) Abrupt change in caliber distal to compression defect
- There is relief of compression by postural change into prone knee-elbow position.

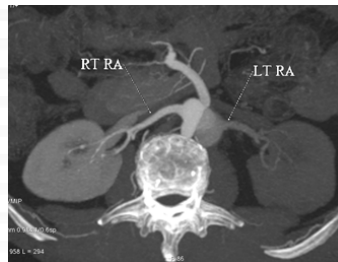
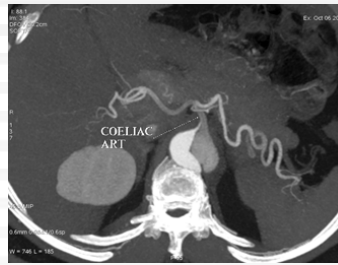
CASE STUDY 3

History : Patient was a known case of refractory hypertension since long time. Before one week he presented with chest pain with sudden fall in blood pressure. On catheter coronary angiography there was incidental finding of dissection of aorta. So he was advised CT Aortography for further evaluation.

Images of Aortography



Coronal MIP



Axial MIP



Volume rendered

CT Aortography Findings :

There was spiral free intimal flap with presence of true and false lumen, starting just after the origin of left subclavian artery and extending upto left common iliac artery bifurcation - suggests **Stanford B (DeBakey-III) Aortic Dissection**

Extension of flap was noted in celiac trunk and common hepatic artery.

Left renal artery was arising from false lumen with resultant delayed perfusion of left kidney.

Dissection of Aorta - Types of Dissection :

DeBakey classification:

Type I = ascending aorta + portion distal to arch

Type II = ascending aorta only

Type III = descending aorta only

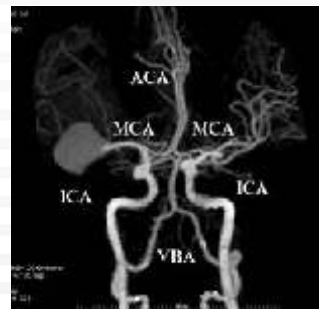
Stanford classification:

Type A = ascending aorta ± arch in first 4 cm

Type B = descending aorta only

CASE STUDY 4

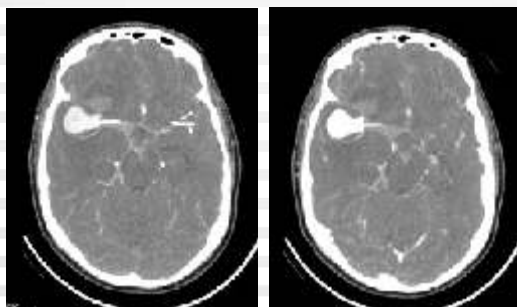
History : A middle aged man presented with complains of severe headache associated with vomiting followed by unconsciousness. On examination patient was hypertensive. On plain CT scan of head there was diffuse subarachnoid hemorrhage with cerebral edema. So he was advised for CT Angiography of brain.



Thick MIP Image



Volume Rendered Image



Arterial Phase

Venous Phase

CT scan findings:

On CT Angiography, there was large aneurysm from the M2 segment of right MCA. During venous phase there was increasing density in the cavity suggestive of ruptured pseudoaneurysm. Other findings were diffuse subarachnoid hemorrhage with cerebral edema.

Modalities :

- CT Scan (64 slice)
- MRI (1.5 Tesla)
- PET-CT (16 slice)
- Nuclear Medicine
- Fetal Medicine
- Ultrasonography (3D-4D) / Color Doppler
- Digital X-Ray
- Digital Mammography
- Interventional Radiology
- Teleradiology



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Aditya Hospital
and
CORONARY CARE UNIT

Dr. Rajendra P. Rajpara
M.D.
Consultant Physician in Cardiology

We are thankful to many of our friends for their kind words of appreciation which has encouraged us to spread awareness regarding role of Radio Diagnosis in the management of patients & help us to communicate better with medical community. Please feel free to send your suggestions / feedback or your queries on info@infocusdiagnostics.com

*The Radiologists Division
Ahmedabad
Dear Sir,
I am glad to see the activity through these bulletins. I am really pleased to read & watch even rare cases. These way you are spreading of knowledge apart from this it also give such explains I am increasing the P/D in my branch. I am really thankful from bottom of my heart
yours
*Rajendra P. Rajpara**

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