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## Right colic artery aneurysm – A diagnostic dilemma

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### Abstract

Aneurysms of right colic artery are extremely rare, idiopathic in most of the cases. Right colic artery aneurysm presents as acute onset abdominal pain, intra-abdominal haemorrhage. Synonymou with abdominal apoplexy. Preop diagnosis is difficult, despite recent advances in imaging. Here is a 62 year male patient presented with acute pain abdomen. Patient was admitted and evaluated which showed hypoechoic lesion in the right hypochondrium extending up to the right iliac fossa. patient was posted for right hemi-colectomy with hematoma evacuation. this case was interesting as Right colic artery aneurysm is idiopathic in most of the cases and is a Challenging condition if not managed appropriately is associated with high mortality.

**Keywords:** Right colic artery aneurysm, right hemi colectomy

### Introduction

Aneurysms of right colic artery are extremely rare, idiopathic in most of the cases. Necrotizing arteritis, polyarteritis nodosa, hypertension, congenital abnormality in tunica media, inflammation of the arterial wall, vasculitis, mycotic, bacterial infections, trauma, pregnancy, malignancy, expansion of inflammatory process of adjacent tissue (pancreatitis) are known causes <sup>[1]</sup>.

Right colic artery aneurysm presents as acute onset abdominal pain, intra-abdominal hemorrhage. Synonymous with abdominal apoplexy' <sup>[2]</sup>.

Preoperative diagnosis is difficult despite recent advances in imaging.

### Case Report

62 year male patient presented to the emergency department with pain in the RIF which was sudden in onset gradually progressive in nature no aggravating and relieving factors were present. The patient vitals were stable at the time of admission and admitted and evaluated. Hematological and biochemical parameters were within normal limit.

Ultrasound abdomen showed two hypoechoic lesion one in Right lumbar region measuring 7.5\*4.6\*5.7cm and other in umbilical region measuring 7\* 4\* 1 cm

CECT abdomen scan done showed Large hematoma in right upper quadrant and right flank extending minimally into right iliac fossa measuring 12.6\*6.4cm axially 14.2cm craniocaudally.

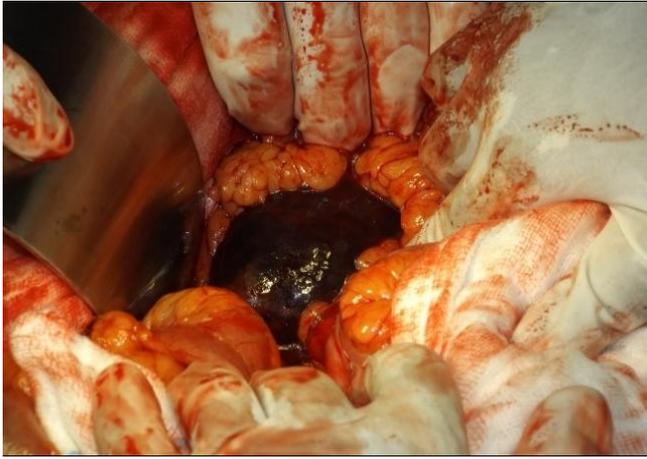
Hematoma was closely applied to duodenal loop and to ascending colon.

Two discrete pseudo aneurysms seen involving Right colic artery. The proximal pseudo aneurysm measuring 6\*8mm and distal one 6\*5mm, these course along superior and Right lateral aspect of hematoma and no active bleed was present.

Significant circumferential wall thickening and luminal narrowing of coeliac axis, common hepatic artery, origin of gastroduodenal artery, splenic artery, entire length of superior mesenteric artery and its branches. Atherosclerotic changes seen in aorta and common iliac artery.

With the above findings patient was posted for exploratory laparotomy and intra operative findings were large intra peritoneal hematoma 14\*6cm with Ruptured right colic artery aneurysm with diameter of 10cm. Pseudo aneurysm with thrombus formation in tunica media and multiple small aneurysm of colic vessels were noted.

Hematoma evacuation and Right hemicolectomy was done with end to end anastomosis. Post operative period was uneventful and histopathology showed Hematoma with pseudo aneurysm of the right colic artery and patient is under follow up



**Fig 1:** Hematoma with right colic artery aneurysm



**Fig 2:** Right hemicolectomy with end to end anastomosis

### Discussion

Right colic artery aneurysm idiopathic in most cases and a challenging condition associated with high mortality if not managed properly. Most common encountered presenting symptom long duration of vague abdominal pain. Physical examination rarely helpful. Angiography been gold standard for diagnosis. Mortality minimum after a successful aneurysmatectomy. Trans arterial embolization safe less invasive procedure [3] but complications like bowel infraction, segmental intestinal necrosis, stricture, perforation, aneurysm rupture limit this method. Visceral arterial aneurysm is uncommon and it generally affects sites in visceral arteries such as splenic artery (60%), hepatic artery (20%), superior mesenteric artery (5.5%), celiac artery (4%), and gastric and gastroepiploic arteries (4%)' colic artery aneurysm is very uncommon (0.3%) [4]. Preoperative diagnosis is difficult despite recent advances in imaging. Colic artery aneurysm represent approximately 0.28% of all superior mesenteric aneurysm [5]

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