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| **Status** | **Age** | **Sex** | **Weight (kg)** | **Height (m)** | **Blood Press. (mmHg)** | **Relevant Comorbidities & Cardiovascular Risk Factors** | **Presenting Symptoms** |
| CMI+ | 66 | F | 81 | 1.59 | 141 / 81 | ~~Hypertension,~~ ~~obesity,~~ ~~smoker~~ | Suspicion of CMI raised by imaging |
| CMI+ | 73 | F | 46 | 1.65 | 130 / 64 | ~~Hypertension~~, ~~former smoker (quit 2001)~~ | Diarrhea, ~~weight loss, left-sided postprandial chest pain~~ |
| CMI+ | 67 | F | 50 | 1.60 | 162 / 82 | ~~Hypertension~~, pylorus/gastric ulcer, stricture of bile duct, ~~GERD~~, ~~hyperlipidemia~~, ~~former smoker (quit 2001)~~ | ~~Abdominal pain, nausea~~ |
| CMI+ | 47 | F | 54 | 1.60 | 102 / 66 | ~~Hypertension~~, ~~dyslipidemia~~, atherosclerosis, peripheral vascular disease, ~~former smoker (quit 2004)~~ | ~~Abdominal pain~~ |
| CMI+ | 80 | M | 69 | 1.73 | 126 / 53 | ~~Hypertension~~, ~~polyangiitis,~~ ~~hyperlipidemia~~, aortic dissection, ~~former smoker (quit 1957)~~ | ~~Postprandial abdominal pain, nausea,~~ vomiting |
| CMI+ | 42 | M | 87 | 1.83 |  | ~~Hypertension~~, ~~obesity,~~ ~~esophageal reflux, pancreatitis~~ | ~~Nausea,~~ ~~weight loss~~ |
| CMI- | 86 | F | 59 | 1.65 |  | ~~Hypertension~~ | ~~Unexplained weight loss~~, ~~nausea~~ |
| CMI- | 60 | F | 64 | 1.55 | 115 / 58 | ~~Hypertension~~, ~~dyslipidemia,~~ ~~former smoker (5 years, quit 2012),~~ ~~obesity~~ | ~~3 weeks~~ ~~of nausea~~, ~~vomiting,~~ ~~weight loss (5 kg)~~ |
| CMI- | 69 | F | 68 | 1.55 | 126 / 71 | ~~Hyperlipidemia,~~ ~~former smoker (quit 2013),~~ ~~obesity~~ | ~~Progressive RUQ abdominal pain after high fat/high calorie meals~~, ~~nausea,~~ ~~weight loss~~ |
| CMI- | 61 | M | 80 | 1.68 | 110 / 64 | ~~Hypertension~~, ~~hypercholesteremia~~, ~~acid reflux,~~ AAA status post endovascular repair complicated by graft infection, CKD 3, ~~former smoker (quit 1999),~~ ~~obesity~~ | ~~Postprandial abdominal pain~~ |
| CMI- | 31 | F | 87 | 1.84 | 132 / 74 | Diabetes mellitus secondary to pancreatectomy, ~~hypertriglyceridemia~~, ~~hypertension~~, hepatic steatosis, ~~former smoker (quit 2014), obesity~~ | ~~Nausea,~~ ~~epigastric abdominal pain~~ |
| CMI- | 46 | F | 85 | 1.63 | 143 / 87 | Multiple sclerosis, ~~chronic sphincter Oddi pain~~, ~~hypertension~~, ~~hyperlipidemia~~, ~~former smoker (quit 2005), obesity~~ | ~~Nausea~~, ~~vomiting,~~ constipation, ~~diarrhea~~ |
| CMI- | 42 | M | 99 | 1.83 | 142 / 78 | ~~Hypertension~~, ~~esophageal reflux,~~ ~~pancreatitis history, obesity~~ | Suspicion of CMI raised by imaging |
| CMI- | 22 | M | 56 | 1.78 | 118 / 74 | Psychotic disorder | ~~Epigastric abdominal pain (3 years), weight loss~~ |
| CMI- | 21 | F | 56 | 1.58 | 98 / 66 | N/A | ~~Postprandial abdominal pain~~ |
| CMI- | 22 | M | 56 | 1.78 | 110 / 69 | N/A | ~~Postprandial abdominal pain, weight loss, nausea, vomiting~~ |
| CMI- | 35 | F | 50 | 1.40 | 148 / 85 | ~~Takayasu's arteritis~~, ~~hypertension~~, ~~hypercholesterolemia~~, ~~smoker,~~ ~~obesity~~ | ~~Weight loss,~~ ~~postprandial abdominal pain~~ |
| CMI- | 35 | M | 98 | 1.82 | 120 / 78 | ~~Esophageal reflux,~~ ~~smoker,~~ ~~obesity~~ | ~~Right-sided abdominal pain radiating to groin~~ |
| CMI- | 46 | M | 74 | 1.75 | 127 / 84 | Barrett's Esophagus, ~~smoker~~ | ~~Chronic abdominal pain~~ |

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| *Relevant Comorbidities*  *& Risk Factors – N [%]* | CMI+ (N=6) | CMI- (N=13) |
| Hypertension | 6 [100%] | 7 [54%] |
| Obesity | 2 [33%] | 8 [62%] |
| Former Smoker | 4 [67%] | 5 [38%] |
| Dyslipidemia | 3 [50%] | 3 [23%] |
| Esophageal Reflux | 2 [33%] | 3 [23%] |
| Current Smoker | 1 [17%] | 3 [23%] |
| Pancreatic disease | 1 [17%] | 2 [15%] |
| Vasculitis | 1 [17%] | 1 [8%] |
| *Presenting Symptoms – N [%]* | CMI+ (N=6) | CMI- (N=13) |
| Postprandial abdominal pain | 4 [67%] | 9 [69%] |
| Nausea | 3 [50%] | 6 [46%] |
| Weight Loss | 3 [50%] | 6 [46%] |
| Vomiting | 1 [17%] | 3 [23%] |
| Diarrhea | 1 [17%] | 1 [8%] |

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| **No.** | **Clinical Findings** | **Diagnostic Test Findings** | **Procedures/Plan** | **Follow Ups** | **How was suspicion raised?\*** | **Revascularization?** |
| 1 | History of SMA/CA occlusion with moderate narrowing. Increased IMA velocities from US. | US: Increase in systolic (668 cm/s) and diastolic velocity (247 cm/s) of in proximal IMA.  MRI: Stable CA and SMA occlusion, reconstitution via pancreaticoduodenal and IMA collaterals. 60-70% IMA narrowing. | Endarterectomy of IMA, bypass to the SMA | 08/24/2015: Still asymptomatic despite elevated IMA velocities. Patient reluctant to pursue operation. | 2 | N/A |
| 2 | Past 4 weeks diarrhea and weight loss, with left-sided postprandial chest pain. | CT: Narrowing of CA and SMA.  MRI: Hemodynamically significant mesenteric ischemia due to CA and SMA stenosis. SMA stenosis worse from 2008. | SMA stent was recommended. | 07/14/2015: Pain improved with narcotic pain medications. Diarrhea resolved and pain is now just mild discomfort. | 3 | 09/22/2015: Patient underwent SMA and CA PTA. Symptoms completely resolved. |
| 3 | Abdominal pain, nausea. | MRI: Decreased distance and angle between SMA and aorta suggests SMA syndrome. | N/A | N/A | 3 | N/A |
| 4 | Chronic abdominal discomfort linked to food intake, nausea, and vomiting. | CT: Mild SMA and CA stenosis.  MRI: Moderate to severe stenosis at origin of SMA with post-stenotic dilatation. Mild stenosis at CA origin which is not increased during inspiration. | Revascularization | N/A | 3 | 04/24/2013: Patient states lessened symptoms after surgery. |
| 5 | Admitted to hospital due to abdominal pain. | CT: Aortic dissection. MRI: Stable Stanford type B dissection without evidence of extension. | Conservative therapy | N/A | 2 | 11/01/2012: Pain improved, indicates chronic SAM ischemia |
| 6 | Thoracoabdominal aneurysm operation (03/29/2012). Now nausea, weight loss, but normal bowl movements. Noted to have little to no SMA flow during surgery. | MRI: Aortic repair. Widely reimplanted CA and IMA, with SMA occlusion and renal artery stenosis. Splenic size doubled, suggesting splenic artery is serving as a sump, leading to possible mesenteric steal phenomenon. | Place a PICC to initiate TPN for poor nutritional status. | 04/26/2012: Transfusion related hemolytic anemia. Continues to feel nauseated. Parenteral nutrition. 04/28/2012: Hemolytic anemia detected. Splenic artery blood flow is increased due to hypersplenism from hemodialysis. | 3 | 10/21/2012: Patient is doing quite well after operation. |
| 7 | 11/16/2015: Weight loss in the past 6 months. Persistent postprandial pain. Extensive vascular disease with known CA stenosis. | EGD: Normal.  US: No evidence of gallstones.  MRI: Nonspecific narrowing of proximal CA with distal reconstitution by gastroduodenal artery. | Median arcuate ligament surgical release. | 12/02/2015: Diagnosed with Takayasu arteritis. Since starting prednisone, improvements in chronic headache. 12/28/2015: Discussion of MALS. Persistent abdominal symptoms. | 3 | 02/29/2016: Complete resolution of pain after laparoscopic median arcuate ligament release. |
| \*Clinical suspicion was raised either by symptoms=1, imaging=2, or both=3.  Abbreviations: CA=celiac artery; SMA=superior mesenteric artery; IMA=inferior mesenteric artery; MALS=median arcuate ligament syndrome US=ultrasound; CT=computed tomography;  MRI=magnetic resonance imaging; PTA=percutaneous transluminal angioplasty; SAM=segmental arterial mediolysis; PICC=peripherally inserted central catheter; TPN=total parenteral nutrition | | | | | | |

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| **No.** | **Clinical Findings** | **Diagnostic Test Findings** | **Procedures/Plan** | **Follow Ups** | **How was suspicion raised?** | **Revascularization?** |
| 1 | Unexplained weight loss and nausea. | MRI: Choledocholithiasis Endoscopy: Choledocholithiasis | Diagnostic testing | 12/03/2014: All symptoms are significantly improved after ERCP with sphincterotomy and stone removal from bile duct. 01/10/2016: Patient deceased. | 1 | N/A |
| 2 | Intermittent nausea, vomiting, weight loss (~3 weeks). Sore throat, strep negative. Denies abdominal pain, diarrhea, fever. | H. Pylori Test: Negative.  EGD: Esophagiitis (distal third) CT: Ectatic aorta. Moderate to severe CA stenosis, shown to be tortuous. Marked tortuosity of SMA  MRI: SMA is patent. | Diagnostic testing | 11/04/2013: The etiology of nausea/vomiting have not been found. However, this does seem to be improving on its own. Conservative therapy. 01/10/2013: Recurrence of symptoms has not been seen. | 1 | N/A |
| 3 | Postprandial RUQ pain (>1 year). No weight loss or fear of eating. Underwent cholecystectomy for pain, with no improvements. | MRCP: No cholelithiasis, choledocholithiasis, or biliary dilatation.  MRI: No evidence of arterial stenosis. | Diagnostic testing | 09/09/2020: Patient carried history of irritable bowel syndrome, abdominal pain, peptic ulcer, esophageal reflux, difficulty passing stool. | 1 | N/A |
| 4 | Abdominal aortic aneurysm status post endovascular repair (02/2011) complicated by graft infection. Postprandial abdominal pain since 09/2012. | MRI: Stable postoperative changes from distal aortic resection and right axillary to bifemoral bypass graft. | Diagnostic testing | 04/19/2013: Further testing to exclude that pain potentially originating inguinal hernia was proposed. 12/04/2019: Patient continued to have a problem related to inguinal hernia. | 1 | N/A |
| 5 | Total pancreatectomy and celiac plexus block (07/2013), history of laparotomy with median arcuate ligament release. Continued abdominal pain with occasional nausea. | CT: Incomplete opacification of SMV may represent partial thrombosis or mixing artifact. Moderate narrowing of CA. Prominent collaterals between mesenteric vessels. MRI: No SMV thrombosis. Unchanged narrowing of the celiac artery. | Diagnostic testing | 10/18/2013: Given imaging findings, patient would not likely benefit from further release of arcuate ligament. EGD revealed bile gastritis, which may explain symptoms. Conservative therapy. | 3 | N/A |
| 6 | Symptoms of nausea, vomiting, constipation, diarrhea. Patient cannot eat meal unless she has been lying down for 4 hours, otherwise has vomiting and extreme pain despite bland diet. | CT: Focal narrowing of SMA may represent nonocclusive thrombus. MRI: No evidence of stenosis at the replaced right hepatic artery. This may have been due to pulsatility artifact on the prior CTA. | Patient to see vascular surgery | 05/30/2017: Chronic sphincter of Oddi pain with abdominal pain persistent. | 1 | N/A |
| 7 | History of aortic coarctation, status post thoracoabdominal aneurysm repair, with occlusion of SMA. | MRI: Patient reimplanted CA and IMA and occluded SMA with collateral circulation. Spleen size decreased. | N/A | 08/05/2016: Patient is doing fairly well. Hemolytic anemia improved. MRA showed decrease in spleen size. | 2 | N/A |

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| **No.** | **Clinical Findings** | **Diagnostic Test Findings** | **Procedures/Plan** | **Follow Ups** | **How was suspicion raised?\*** | **Revascularization?** |
| 8 | Abdominal pain (~3 years). Pain has consistent in epigastric region. Weight loss over time but has since gained weight back. No change in pain since ligament release surgery (6/22/2016). | MRI: Repaired median arcuate ligament. CA is now patent without any dynamic compression by the mediate arcuate ligament. SMA and IMA are normal. | Perform EGD to discuss possibility of IBS. | N/A | 1 | N/A |
| 9 | Patient has been diagnosed with irritable bowel syndrome before. No nausea but vomiting episodes. | MRI: Marked compression of proximal celiac axis with expiration that is only partially relieved with inspiration. | With MRA, no further intervention was recommended. | N/A | 1 | N/A |
| 10 | Abdominal pain, nausea, vomiting, and weight loss. Transferred after being found with markedly elevated celiac artery pressure, concerns for celiac artery compression syndrome. | MRI: Focal compression of CA showing 2DPC flow dephasing compatible with hemodynamically significant stenosis from the median arcuate ligament syndrome. Cholelithiasis. | Median arcuate ligament surgical release. | 07/08/2016: Since surgery, patient has not noted any change with abdominal pain or food tolerance, although he is well aware that this may not be resolved with surgery. | 3 | 06/23/2016: Median arcuate ligament release did not resolve patient symptoms |
| 11 | Right-side abdominal pain radiating to groin. | MRI: Approximate 50% stenosis at the origin of the celiac trunk which could be related to median arcuate ligament compression.  US abdominal: No testicular mass, probable small fat-containing left inguinal hernia. | Diagnostic testing | 10/31/2016: No further evaluation for the syndrome was recommended as the patient did not complained of pain that would be caused by the syndrome (see MRA). The finding on MRA were considered incidental findings with no clinical significance. | 1 | N/A |
| 12 | Chronic abdominal pain, CA stenosis | MRI: High-grade stenosis of CA, only partially mitigated during inspiration. Post-stenotic dilatation of the CA, prominent pancreaticoduodenal arcade. Findings compatible with MALS, although other etiologies are possible and should be considered. | Diagnostic testing | 06/06/2012: Abdominal pain is largely resolved. Patient has been passing flatus and having bowl movements. Conservative management of obstructive symptoms with bowel rest and nasogastric tube decompression. | 1 | N/A |
| \*Clinical suspicion was raised either by symptoms=1, imaging=2, or both=3.  Abbreviations: CA=celiac artery; SMA=superior mesenteric artery; IMA=inferior mesenteric artery; CT=computed tomography; MRI=magnetic resonance imaging; MRA=magnetic resonance angiography; US=ultrasound; IBS=irritable bowel syndrome; 2DPC=2D Phase Contrast; MALS=median arcuate ligament syndrome; EGD=esophagogastroduodenoscopy;  ERCP=endoscopic retrograde cholangiopancreatography; MRCP=Magnetic resonance cholangiopancreatography | | | | | | |