

Erratum to: ACR appropriateness criteria® imaging of mesenteric ischemia

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In the original publication of the article, references were cited incorrectly which has been corrected with this erratum.

In “Summary of Literature Review” under subheading “Pathophysiology”, the last sentence of the first paragraph states, “In the chronic setting, mesenteric ischemia is almost always caused by severe atherosclerotic disease, with rare causes including fibromuscular dysplasia, median arcuate ligament syndrome, and vasculitis [4].” The stated reference [4] is incorrect. The correct reference is Sreenarasimhaiah J (2005) Chronic mesenteric ischemia. *Best Pract Res Clin Gastroenterol* 19(2):283–295.

In “Summary of Literature Review” under subheading “Pathophysiology”, the second sentence of the second paragraph states, “Acute mesenteric artery thrombosis is

typically associated with chronic atherosclerotic disease and, given its more insidious course, a well-developed collateral circulation is commonly present [4]. The stated reference [4] is incorrect. There should be no citation after this sentence.

In “Summary of Literature Review” under subheading “Pathophysiology”, the last sentence of the second paragraph states, “Bowel ischemia occurs if there is no adequate collateral circulation to drain the intestinal mucosa, leading to edema and subsequent arterial hypoperfusion [4].” The stated reference [4] is incorrect. There should be no citation after this sentence.

In “Summary of Literature Review” under subheading “Pathophysiology”, the first sentence of the third paragraph states, “Chronic mesenteric ischemia occurs due to occlusive or stenotic atherosclerotic disease and most commonly involves at least two or three main vessels [6].” The stated reference [6] is incorrect. There should be no citation after this sentence.

In “Summary of Literature Review” under subheading “Clinical Presentation”, the first sentence of the

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second paragraph states, “In the setting of chronic mesenteric ischemia, patients classically present with the clinical triad of postprandial abdominal pain, weight loss, and food avoidance [6].” The stated reference [6] is incorrect. There should be no citation after this sentence.

In “Summary of Literature Review” under subheading “Overview of Imaging Modalities”, the first sentence of the first paragraph states, “Conventional angiography has been the reference standard test to assess mesenteric ischemia in both acute and chronic settings, as it allows diagnosis and treatment with a single procedure [9, 10].” These references are correct. This sentence should also include the following citation: Hagspiel KD, Angle JF, Spinosa DJ, Matsumoto AH (1999) Mesenteric ischemia: angiography and endovascular interventions. In: Long W, Peterson GJ, Jacobs DL (eds) Intestinal ischemia disorders: pathophysiology and management. St. Louis: Quality Medical Publishing, pp 105–154. In “Summary of Literature” under subheading “Overview of Imaging Modalities,” the first sentence of the second paragraph states, “Computed tomography angiography (CTA) is a fast and noninvasive test with high sensitivity and specificity in diagnosing acute and chronic mesenteric ischemia and should be considered the first-line test in most acute and chronic cases [7, 12–16].” These references are correct. This sentence should also include the following citations: Shih MC, Angle JF, Leung DA, et al. (2007) CTA and MRA in mesenteric ischemia: part 2. Normal findings and complications after surgical and endovascular treatment. *AJR* 188(2):462–471; Taourel PG, Deneuville M, Pradel JA, Regent D, Bruel JM (1996) Acute mesenteric ischemia: diagnosis with contrast-enhanced CT. *Radiology* 199(3):632–636; Wiesner W, Hauser A, Steinbrich W (2004) Accuracy of multidetector row computed tomography for the diagnosis of acute bowel ischemia in a non-selected study population. *Eur Radiol* 14(12):2347–2356.

In “Summary of Literature Review” under subheading “Overview of Imaging Modalities”, the end of first sentence of the fifth paragraph states, “...and has a limited role in the diagnosis of distal occlusion [7, 23]”. While reference 7 is correctly cited, reference 23 is incorrectly cited and should be removed.

In “Summary of Literature Review” under subheading “Overview of Imaging Modalities”, the second sentence of the fifth paragraph states, “US may be helpful in diagnosing other causes of acute and abdominal pain such as cholecystitis, cholelithiasis, nephrolithiasis, pancreatitis, and sometimes appendicitis.” This sentence should end with the following citation: Danse EM, Van Beers BE, Goffette P, et al. (1996) Diagnosis of acute intestinal ischemia by color Doppler sonography. *Color Doppler sonography and acute intestinal ischemia. Acta Gastroenterol Belg* 59(2):140–142.

In “Summary of Literature Review” under the subheading “Acute Mesenteric Ischemia”, the second para-

graph has the subheading “*Computed tomography angiography*”. The last sentence of this paragraph states, “Overall, combining vascular findings with the appearance of the bowel wall resulted in a specificity of 94% with a sensitivity of 96% [2, 7, 24]. While references 2 and 7 are correctly cited, reference 24 is incorrectly cited and should be removed.

In “Summary of Literature Review” under the subheading “Acute Mesenteric Ischemia”, the fourth paragraph has the subheading “*Angiography*”. The fifth sentence of this paragraph states, “However, others advocate early angiography because of the importance of determining the etiology of bowel ischemia and providing a “roadmap” for revascularization procedures [5].” The stated reference [5] is incorrect. The correct citation is Brandt LJ, Boley SJ (2000) AGA technical review on intestinal ischemia. *American Gastrointestinal Association. Gastroenterology* 118(5):954–968.

In “Summary of Literature Review” under the subheading “Acute Mesenteric Ischemia”, the fifth paragraph has the subheading “*Ultrasound*”. The first sentence of this paragraph states, “The efficacy of US in diagnosing acute mesenteric ischemia has been evaluated in many studies. US can demonstrate proximal mesenteric vessel thrombosis via Doppler mode. It was shown that US is highly specific for identifying vascular occlusions (92%–100%) but has a lower sensitivity (70%–89%) [28, 30].” The stated reference [28] is incorrect and should be removed. The stated reference [30] is correct. This sentence is supported by two additional citations. The first citation is Bowersox JC, Zwolak RM, Walsh DB, et al. (1991) Duplex ultrasonography in the diagnosis of celiac and mesenteric artery occlusive disease. *J Vasc Surg* 14(6):780–786; discussion 786–788. The second citation is Moneta GL, Yeager RA, Dalman R, et al. (1991) Duplex ultrasound criteria for diagnosis of splanchnic artery stenosis or occlusion. *J Vasc Surg* 14(4):511–518; discussion 518–520.

In “Summary of Literature Review” under the subheading “Acute Mesenteric Ischemia”, the fifth paragraph has the subheading “*Ultrasound*”. The last sentence of this paragraph states, “US might be helpful in excluding other causes of acute abdominal pain such as cholelithiasis, cholecystitis, nephrolithiasis, acute pancreatitis, or even appendicitis, but it is not recommended for initial evaluation of patients with suspected acute mesenteric ischemia because timing of the diagnosis is very critical [7, 9]”. The stated reference [7] is correct. The stated reference [9] is incorrect and should be removed.

In “Summary of Literature Review” under the subheading “Chronic Mesenteric Ischemia”, the second paragraph has the subheading “*Ultrasound*”. The fourth sentence of this paragraph states, “On the other hand, the inferior mesenteric artery can hardly be visualized on transabdominal US studies due to its anatomical

location and course [30].” The stated reference [30] is incorrect and should be removed.

In “Summary of Literature Review” under the subheading “Chronic Mesenteric Ischemia”, the second paragraph has the subheading “*Ultrasound*”. The fifth sentence of this paragraph states, “Peak systolic velocity has been widely used for diagnosing stenosis, with a cutoff value of 275 cm/s for the SMA and 200 cm/s for the celiac artery.” This sentence should end with the following citation: Perko MJ (2001) Duplex ultrasound for assessment of superior mesenteric artery blood flow. *Eur J Vasc Endovasc Surg* 21(2):106–117.

In “Summary of Literature Review” under the subheading “Chronic Mesenteric Ischemia”, the fourth paragraph has the subheading “*Magnetic Resonance Angiography*”. The first sentence of this paragraph states, “MRA is a noninvasive test that has become increasingly accurate in recent years for diagnosing

chronic mesenteric ischemia, with sensitivity and specificity of 100% and 95%, respectively [18].” The stated reference [18] is incorrect. The correct citation is Meaney JF, Prince MR, Nostrant TT, Stanley JC (1997) Gadolinium-enhanced MR angiography of visceral arteries in patients with suspected chronic mesenteric ischemia. *J Magn Reson Imaging* 7(1):171–176.

In “Summary of Literature Review” under the subheading “Chronic Mesenteric Ischemia”, the fourth paragraph has the subheading “*Magnetic Resonance Angiography*”. The second sentence of this paragraph states, “Nonetheless, obtaining high-resolution angiograms is still limited to the inferior mesenteric arteries, where it depicts only 25% of this vessel due to its anatomical course [14].” The stated reference [14] is incorrect. The correct citation is Laissy JP, Trillaud H, Douek P (2002) MR angiography: noninvasive vascular imaging of the abdomen. *Abdom Imaging* 27(5):488–506.