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Vasculitis Cytoplasmic Gastro and Hepatic Disease

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Introduction

Vasculitis is characterized by reactive damage to mural structures and an accumulation of inflammatory leucocytes in blood vessels. It is uncommon to have gastrointestinal vasculitis isolated without systemic involvement. We present a singular case in which a female patient presented with abdominal pain and had elevated inflammatory markers on serology without autoantibodies. Vasculitis of the hepatic artery was found in the abdomen and pelvis on a computed tomography scan. As far as we are aware, vasculitis of the hepatic artery [1].

Description

Vasculitis is characterized by reactive damage to mural structures and an accumulation of inflammatory leucocytes in blood vessels. Although isolated gastrointestinal vasculitis with no systemic involvement is uncommon, gastrointestinal vasculitis is a manifestation of systemic vasculitis. We present a singular case in which a female patient presented with abdominal pain and had elevated inflammatory markers on serology without autoantibodies. Vasculitis of the hepatic artery was found in the abdomen and pelvis on a computed tomography scan. This is, to the best of our knowledge, the first case of vasculitis of the hepatic artery that has been reported. Single organ vasculitis has been reported, particularly in the intestines, gallbladder, and appendix; however, none have been reported in the liver up to this point.

A woman with a history of cholecystectomy presented with prolonged epigastric discomfort and was admitted. She reported bloating and nausea, but she denied vomiting, fever, chills, melena, or urinary or gastrointestinal complaints. The pain was localized. The patient's stable vital signs and afebrile state were evident during a physical examination. Her respiratory and cardiovascular examinations were unaffected. On deep palpation of the epigastrium, abdominal examination revealed minimal tenderness without distension, guarding, or rigidity. A complete blood count revealed normal haemoglobin and white blood cell count. Amylase and lipase levels were not elevated, and the liver enzymes and basic metabolic panel were both normal [2].

A CT scan of the abdomen and pelvis revealed circumferential thickening of the wall of the common hepatic artery and its right and left hepatic branches, as well as a narrowed but patent lumen, suggesting vasculitis. However, radiographs of the abdomen revealed a normal bowel gas pattern. The remaining abdominal and pelvic arteries were unexceptional. A previous scan of the abdomen and pelvis had shown nothing unusual. The results were confirmed by MRI of the visceral arteries in the abdomen and pelvis.

The white arrow points to the common hepatic artery, which has a soft tissue-density-thickened rind and some stranding in the fat next to it. At the time of admission, both the C-reactive protein and the erythrocyte sedimentation rate were elevated. Due to the increased sedimentation rate, additional history and examination were performed to rule out systemic vasculitis. The examination did not reveal a rash, and the patient denied having a new rash. Her joint examination was unexceptional, and she denied having. She complained of photosensitivity and phenomenon, both of which had gotten worse while she was receiving estrogenic therapy. Antinuclear antibody, cytoplasmic anti-neutrophil cytoplasmic autoantibody, perinuclear neutrophil antibodies, rheumatoid factor, and anti-cyclic citrullinated peptide were all tested for systemic vasculitis in light of the CT scan results and the elevated sedimentation rate. The a level, the complement level, and the total complement were also normal. Cry globulin, Lyme serology, and hepatitis B and C serology were also negative.

The patient was started on pulse dose methyl prednisone administered intravenously, and her symptoms subsided over the next few days. Prednisone was given to her when she got home. She stopped taking the prednisone later, and during the taper, she didn't have any gastrointestinal or abdominal pain. A scan of the abdomen was performed two weeks after the tapering of prednisone. It revealed a significant improvement in the thickening of the wall, as evidenced by interval decreases in the soft tissue density surrounding the hepatic artery. The hepatic artery's wall had become thicker, and the luminal calibre had decreased, on the initial abdomen scan. The scan revealed an improvement in the thickening a few weeks later. The patient denied having any abdominal pain at the follow-up, and the normalized erythrocyte sedimentation rate revealed a significant interval decrease in the soft tissue density surrounding the common hepatic artery and its branches. Vasculitis is an accumulation of inflammatory leucocytes in blood vessels that causes reactive damage to mural structures. It is uncommon to have gastrointestinal vasculitis isolated without systemic involvement. We present a singular case in which a female patient presented with abdominal pain and had elevated inflammatory markers on serology without autoantibodies. Vasculitis of the hepatic artery was found in the abdomen and pelvis on a computed tomography scan. This is, to the best of our knowledge, the first case of hepatic artery vasculitis [3].

Vasculitis is characterized by reactive damage to mural structures and an accumulation of inflammatory leucocytes in blood vessels. In most cases, gastrointestinal vasculitis is a manifestation of systemic vasculitis; however, isolated gastrointestinal vasculitis with no systemic involvement is uncommon. We present a singular case in which a female patient presented with abdominal pain and had elevated inflammatory markers on serology without autoantibodies. Vasculitis of the hepatic artery was found in the abdomen and pelvis on a computed tomography scan. This is, to the best of our knowledge, the first case of vasculitis of the hepatic artery that has been reported. A scan of the abdomen and pelvis revealed circumferential thickening of the wall of the common hepatic artery and its right and left hepatic branches, as well as a narrowed but patent lumen, suggesting vasculitis. However, radiographs of the abdomen revealed a normal bowel gas pattern. The remaining abdominal and pelvic arteries were unexceptional. The abdomen and pelvis had both shown little on a scan. The sedimentation rate at and elevated upon admission were confirmed by magnetic resonance angiography of the visceral arteries of the abdomen and pelvis. Due to the increased sedimentation rate, additional history and examination were performed to rule out systemic vasculitis. The examination did not reveal a rash, and the patient denied having a new rash. Her joint examination was unexceptional, and she denied having. She had Raynaud's phenomenon and photosensitivity symptoms that had gotten worse while she was receiving estrogenic therapy [4].

The patient began receiving a pulse dose intravenously every day for three days, after which her condition normalized and resolved. Prednisone was given to her when she got home. She stopped taking the prednisone later, and during the taper, she didn't have any gastrointestinal or abdominal pain. Inflammatory leucocyte accumulation in blood vessels with reactive damage to mural structures lasts for two weeks. If a patient presents with systemic symptoms and dysfunction in one or more organs, vascular disease should be considered. This is a one-of-a-kind case because the patient complained of abdominal pain and was given the diagnosis of vasculitis of the hepatic artery. She had elevated inflammatory markers but no antibodies, as in other cases of gastrointestinal vasculitis or giant cell arteritis or large vessel vasculitis; medium vessel vasculitis, also known as Kawasaki Disease and polyarthritis; immune complex vasculitis, anti-glomerular basement membrane disease, small vessel vasculitis as anti-

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neutrophil cytoplasmic antibody-associated vasculitis, microscopic polyangiitis, granulomatosis with polyangiitis, and eosinophilic granulomatosis with polyangiitis.

The term "single organ vasculitis" refers to vasculitis in any size of arteries or veins in a single organ that lacks any characteristics that would suggest that it is a limited manifestation of a systemic vasculitis. Within an organ, the distribution of vascular disease can be univocal or multifocal. The diagnosis of should be applied when it is clear that vascular inflammation is not present in other sites at the time of diagnosis as well as during follow-up surveillance, which is recommended for a period of at patient presented clinically with abdominal pain, had elevation of acute phase reactants, and her scan was suggestive of vasculitis in the hepatic artery without clinical and laboratory evidence of systemic vasculitis or connective tissue disease [5].

Conclusion

As a result, the diagnosis was consistent with liver vasculitis of a single organ. The oesophagus, stomach, small or large bowel, peritoneum, appendix, gallbladder, and pancreas were all affected by vasculitis in a Mayo Clinic case series over a period of time. Abdominal pain was the most common complaint, and all of these patients had a negative autoimmune workup. A combination of symptoms and histopathology that suggested vasculitis or angiography with high probability findings were used to make the diagnosis. Only one of the patients who underwent angiography had negative results. The patients received treatment. Five of the patients who were treated received steroids, and another received both steroids and immunosuppressive medications. At the end of their treatment, the patients who had reached remission showed signs of systemic vasculitis.

Acknowledgement

None.

Conflict of Interest

None.

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