Unexplained right upper quadrant abdominal pain? do not forget the cervical spine

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Abstract

Background: Right upper quadrant abdominal pain is a common reason for consulting a gastroenterologist. Commonly, it portends pathological processes occurring in the liver, gall bladder, or the gut however, unusual causes have been reported. We report cervical intervertebral disc prolapse causing right upper quadrant abdominal pain. **Methods**: Case report utilizing medical records of a 40 year old male who presented with unexplained right upper quadrant abdominal pain.

Results: A self-referral for magnetic resonance imaging of the cervical spine revealed compression of the cervical spine at C3/C4, C4/C5 and C5/C6 levels from disc prolapse and osteophyte. He was managed conservatively with cervical collar and physiotherapy with complete resolution of symptoms.

Conclusion: Prolapsed intervertebral discs affecting the cervical spine should be considered in the evaluation of the patient with unexplained right upper quadrant abdominal pain.

Keywords: Cervical Spine, Disc Prolapse, Upper Quadrant Abdominal Pain

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Introduction

Right upper quadrant (RUQ) abdominal pain is a common reason for consultation in clinical practice. Commonly, it portends pathological processes occurring in the liver, gall bladder, or the gut and less commonly, the pancreas and the lungs. Unusual causes of RUQ pain have been reported in the literature ranging from perforated appendicitis¹, colorectal carcinoma², primary amyloidosis³, pelvic inflammatory disease⁴ and visceral larva migrans⁵ to mention a few. In this report, we present a young man with RUQ pain due to degenerative disc disease affecting the cervical spine.

Case Report

A 40 year old male complained of RUQ abdominal pain of four months' duration which was dull in nature, non-radiating and but was aggravated by motion. Pain was more noticeable at night and relieved by analgesics. He admitted to a history of constipation in the past few weeks before presentation. He had never been jaundiced, had not lost weight nor did he

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have any other symptom referable to the gastrointestinal tract. He volunteered a history of recent onset intermittent paraesthesia over the soles of his feet. He had no history of physical trauma and had not experienced any difficulty with using the limbs. There were no significant symptoms attributable to other organs. He was a known patient with endoscopically proven non-ulcer dyspepsia. Otherwise, he had no past medical history of note. There was no history of alcohol or tobacco use.

He was a young man with no obvious abnormality on general examination. His pulse was 76/ minute with a BP of 120/80 mmHg. He neither had areas of tenderness, organ enlargement nor ascites on abdominal examination. The findings on the examination of the central nervous, respiratory and cardiovascular systems were unremarkable. He was then thought to have non-ulcer dyspepsia and commenced on Imipramine 25 mg at bedtime.

Feeling unsatisfied with the assessment, he had several consultations with the Neurologist and the General Surgeons. The outcome led to several investigations being carried out on him including serial abdominal ultrasonographic scans, serological tests for the viral hepatitides and human immunodeficiency virus, liver function tests, prostatic specific antigen and double contrast barium enema that revealed no abnormalities.

Self-referral for magnetic resonance imaging of the cervical and lumbosacral spine revealed compression of the cervical spine at C3/C4, C4/C5 and C5/C6 levels from degenerative disc disease with nerve root entrapment (Figure 1). Stabilization of the cervical

spine with a collar resulted in a dramatic resolution of RUQ pain. He was managed conservatively with oral Pregabalin, intermittent cervical collar and physiotherapy and has remained symptom free at 36 months of follow up.



Figure 1. MRI showing disc prolapse at C3/C4 level

Discussion

Degenerative disc diseases usually affect the cervical and lumbosacral spine with affected persons presenting with spinal cord compression, radicular pains, radiculopathy in various combinations. Affectation of the cervical spine can present with pain in the head, shoulders and upper limbs. Referred pain from nerve root compression is not commonly recognized as a presentation of degenerative disc disease.

Often, degenerative disc disease can be successfully treated without surgery. One or a combination of treatments such as physical therapy, chiropractic manipulative therapy (CMT) and other chiropractic treatments, osteopathic manipulation, anti-inflammatory medications such as nonsteroidal anti-inflammatory drugs, traction, or spinal injections often provide adequate relief of troubling symptoms.

Surgery may be recommended if the conservative treatment options do not provide relief within two to three months. If leg or back pain limits normal activity, if there is weakness or numbness in the legs, if it is difficult to walk or stand, or if medication or physical therapies are ineffective, surgery may be necessary, most often spinal fusion. There are many surgical options for the treatment of degenerative disc disease⁷. Our patient presented with unexplained RUQ pain referred from cervical nerve root compression as stabilization of the cervical spine with a collar resulted in instant resolution of the pain.

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