



Review

Aortic and splanchnic artery aneurysms: Unusual causes of biliary obstruction – A retrospective cohort from literature



Kevin Tin ^a, Zain A. Sobani ^b, Joel Horovitz ^c, Rabin Rahmani ^{a, d, *}

^a Division of Gastroenterology, Department of Medicine, Maimonides Medical Center, Brooklyn, NY, USA

^b Department of Medicine, Maimonides Medical Center, Brooklyn, NY, USA

^c Department of Surgery, Maimonides Medical Center, Brooklyn, NY, USA

^d Albert Einstein College of Medicine, NY, USA

H I G H L I G H T S

- Identified 39 cases of biliary obstruction secondary to aortic or splanchnic vessel abnormalities.
- 16 were caused by AAAs and 23 by splanchnic vessels.
- Although uncommon, recognition of aortic and splanchnic arterial abnormalities as a cause of biliary obstruction is important.
- Management entails not only cautious decompression of the biliary tree but also addressing the underlying vascular pathology.

A R T I C L E I N F O

Article history:

Received 22 November 2016

Received in revised form

9 January 2017

Accepted 27 January 2017

Available online 30 January 2017

Keywords:

Aortic

Hepatic artery

Aneurysm

Pseudoaneurysm

Biliary obstruction

Cholangitis

A B S T R A C T

Mechanical obstruction of the biliary tree and resultant stasis are the cornerstone of a spectrum of diseases ranging from biliary colic to fulminant cholangitis. Infrequently acquired abnormalities of the abdominal vasculature can lead to biliary obstruction. In 2010, we reported a case of acute cholangitis resulting from compression of extra hepatic bile duct by an abdominal aortic aneurysm (AAA). We subsequently conducted a follow up scoping review of literature to identify other cases of acquired abdominal arterial abnormalities resulting in biliary obstruction looking at their management and outcomes. The articles were independently reviewed by two of the authors and pertinent data was extracted. The data was divided on an anatomic basis into two groups: one with primary aortic pathology and one with splanchnic vessel pathology.

We identified 39 cases of biliary obstruction secondary to acquired aortic or splanchnic vessel abnormalities; 16 were caused by AAAs and 23 by splanchnic vessels. The cases were managed via conservative, endoscopic, endovascular or open surgical options based on the available technology and expertise.

Although uncommon, recognition of aortic and splanchnic arterial abnormalities as a potential cause of biliary obstruction is important as management entails not only cautious decompression of the biliary tree but also addressing the underlying vascular pathology. We recommend that extrinsic biliary compression by an aneurysm or pseudoaneurysm be considered among the differential diagnosis in patients presenting with biliary obstruction and a known lesion of the abdominal vasculature.

© 2017 IJS Publishing Group Ltd. Published by Elsevier Ltd. All rights reserved.

1. Introduction

Mechanical obstruction of the biliary tree and resultant stasis are the cornerstone of a spectrum of diseases ranging from biliary

colic to fulminant cholangitis. The obstruction is commonly attributed to biliary calculi (28–70%), benign stenosis (5–28%), and malignancy (10–57%) [1,2]. Infrequently other causes, including acquired abnormalities of the abdominal vasculature, can lead to biliary obstruction. In 2010 we reported a case of acute cholangitis resulting from compression of the extra hepatic bile duct by a 5.8 cm abdominal aortic aneurysm(AAA) [3]. We now present a systematic review of literature to identify other cases of acquired

* Corresponding author. Division of Gastroenterology, Department of Medicine, Maimonides Medical Center, 4802 10th Avenue, Brooklyn, NY, 11219, USA.

E-mail address: rrahmani@maimonidesmed.org (R. Rahmani).



PRISMA 2009 Flow Diagram

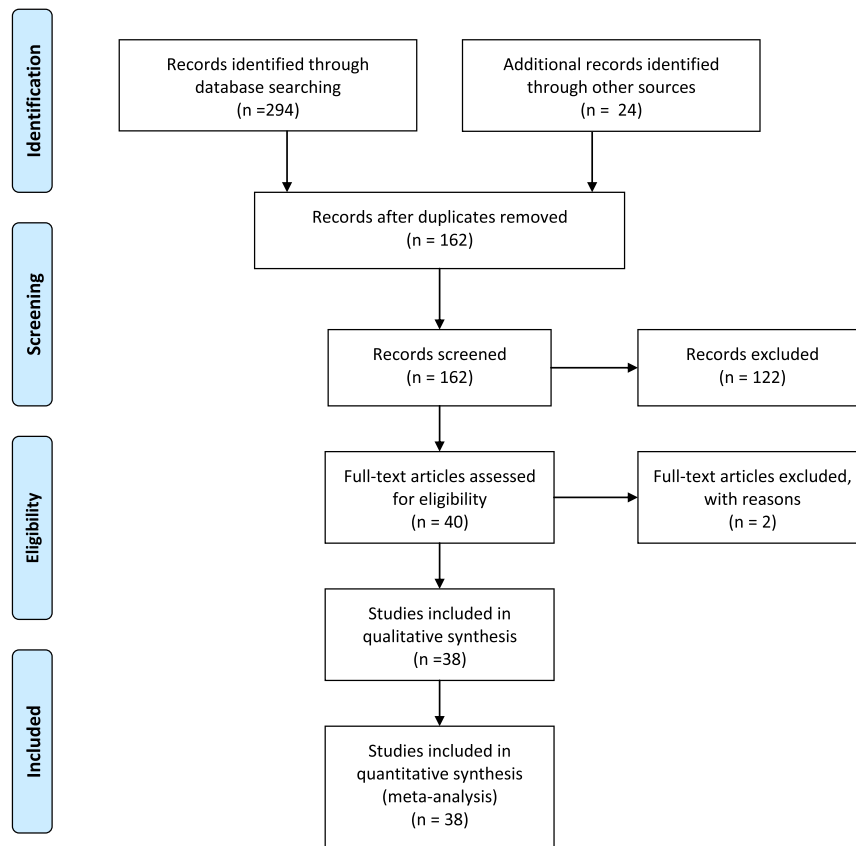


Fig. 1. PRISMA flow diagram demonstrating the literature search.

abdominal arterial abnormalities resulting in biliary obstruction, to outline diagnosis, management and outcomes.

2. Methods

The study was registered with The Research Registry (<http://www.researchregistry.com>), ID reviewregistry157. We conducted an extensive literature search of cases of extrinsic biliary compression by acquired aneurysms and pseudoaneurysms (PSA) using the National Library of Medicine (NLM) database PubMed. Keywords included biliary obstruction; cholangitis; aortic; hepatic artery; splanchnic artery; aneurysm; pseudoaneurysm. Considering the rarity of the disease, we did not limit our search to a specific time period. All cases reported in English language, where acquired arterial abnormalities (aneurysm or pseudoaneurysm) resulted in compression of the biliary tree and subsequent obstruction were included in the study regardless of study design. Cases where anatomic compression could not be clearly identified were excluded. We further reviewed cited articles identified in the online search for cases that may have been overlooked. The literature search is current as of 11/11/2016. The literature search was carried out per the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for systematic reviews [4]. Fig. 1 demonstrates our PRISMA flow diagram (Fig. 1). The PRISMA checklist is included in the additional files. The articles were independently reviewed by two of the authors and pertinent

data was extracted in a predesigned database. The authors subsequently merged their findings and no conflicts were identified. Extracted data included patients, age, gender, region of the report, vessels involved, interventions and outcome. The data was divided on an anatomic basis into two groups; one with primary aortic pathology and one with splanchnic vessel pathology. Descriptive statistics were calculated for both subgroups and a scoping review was subsequently carried out.

3. Results

A total of 294 studies were identified in the initial literature search and an additional 24 were identified from cited references. After adjusting for duplicates 162 abstracts were reviewed and 40 full text articles were reviewed. Two articles were excluded as they could not identify mechanical compression of the biliary tree by the aneurysm and 38 studies were included in the study (Fig. 1). Abnormalities of the aorta and splanchnic vasculature, including hepatic artery (HA), celiac axis (CA) and gastroduodenal artery (GDA), by virtue of their anatomic relation have been described as possible causes of biliary obstruction. Thirty-nine cases of biliary obstruction secondary to acquired aortic or splanchnic vessel abnormalities were identified. We grouped the cases into aortic and splanchnic arterial groups based on the involved vessel.

Download English Version:

<https://daneshyari.com/en/article/5732088>

Download Persian Version:

<https://daneshyari.com/article/5732088>

[Daneshyari.com](https://daneshyari.com)