



ELSEVIER

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://Elsevier.com/locate/radcr>

Case Report

Acquired uterine arteriovenous fistula following dilatation and curettage: an uncommon cause of vaginal bleeding

Adam Evans DO^a, Roland E. Gazaille III DO^{a,*}, Richard McKenzie MD^a,
Meghan Musser DO^a, Robert Lemming MD^a, Jarrod Curry DO^a,
William Meyers DO^a, Nicholas Austin OSM IV^b

^a Department of Diagnostic Radiology, Grandview Medical Center—Kettering Health Network, 405 W Grand Avenue, Dayton, OH 45405, USA

^b College of Osteopathic Medicine, Kansas City University of Medicine and Biosciences, Kansas City, MO, USA

ARTICLE INFO

Article history:

Received 13 September 2016

Received in revised form

20 December 2016

Accepted 2 January 2017

Available online xxx

Keywords:

Arteriovenous malformation

Postpartum hemorrhage

Menorrhagia

ABSTRACT

Dysfunctional uterine bleeding is a common presentation of women in the emergency department. We describe the case of a 33-year-old female who presented with intermittent spotting due to an acquired uterine AVF. The patient underwent a transvaginal pelvic ultrasound as well as a CT angiogram. The patient was treated conservatively and elected to undergo uterine artery embolization in an effort to preserve fertility. She successfully delivered a healthy baby boy at 39-week gestation via an emergent caesarian section due to a prolapsed umbilical cord 17 months after undergoing the uterine artery embolization.

© 2017 Published by Elsevier Inc. on behalf of under copyright license from the University of Washington. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

A 33-year-old female ultrasound technologist presented to the emergency department after experiencing intermittent spotting. She complained of 3/10 pelvic pain accompanied by a constant throbbing sensation. She noted the intermittent spotting to be worse with intercourse and running. The patient had four prior spontaneous miscarriages, two of which required subsequent dilatation and curettage. Her most recent D&C was approximately 1 week prior to her presentation to the

emergency department. Due to her symptoms and line of work, she allowed her students to practice by performing a transvaginal ultrasound on her. At that time, an abnormality was noted and the patient went to the ER for further evaluation.

Upon her presentation to the ER, the patient was in no acute distress and her triage vital signs were stable. She denied any heavy vaginal bleeding, nausea, vomiting, chest pain, dizziness, or shortness of breath. Her laboratory studies revealed mild anemia with a hemoglobin level of 11.5 g/dL and a hematocrit level of 33.9%.

Competing Interests: The authors have declared that no competing interests exist.

* Corresponding author.

E-mail address: roland.gazaille@khnetwork.org (R.E. Gazaille).
<http://dx.doi.org/10.1016/j.radcr.2017.01.005>

1930-0433/© 2017 Published by Elsevier Inc. on behalf of under copyright license from the University of Washington. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

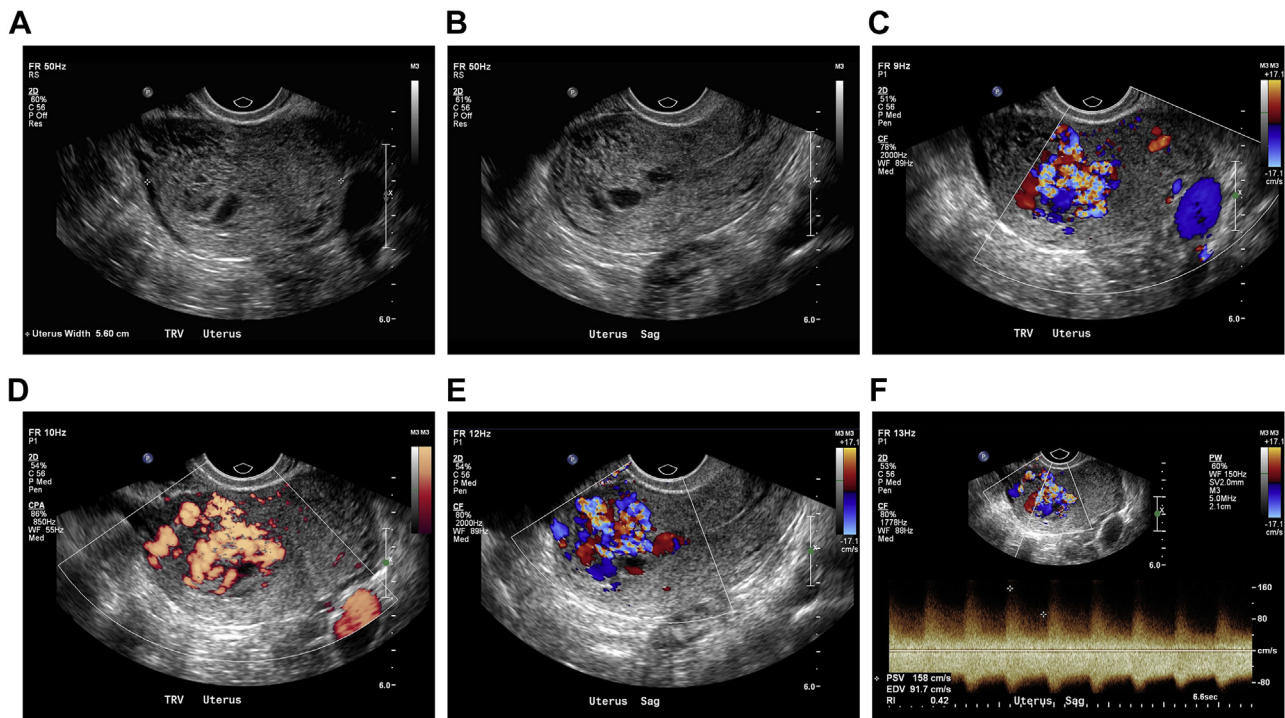


Fig. 1 – Transverse (A) and longitudinal (B) gray scale sonographic images of the uterus demonstrate a focal collection of tubular, anechoic to hypoechoic echoes in the right uterine fundus. No discrete soft tissue mass or mass effect was appreciated. Corresponding transverse color Doppler (C) and power Doppler (D) images as well as a longitudinal color Doppler (E) image demonstrate evidence of increased blood flow within the tubular spaces and adjacent myometrium. Spectral Doppler (F) image exhibits areas of high velocity, low-resistance flow within the area of concern.

Imaging findings

A transvaginal ultrasound was performed (Fig. 1). The gray scale images demonstrated a focal collection of round to tubular anechoic spaces within the myometrium. Color and power Doppler imaging demonstrated blood flow within the anechoic spaces and adjacent myometrium. Spectral Doppler ultrasound images demonstrated findings consistent with high-velocity, low-resistance blood flow.

After a multidisciplinary discussion between emergency room physician, the patient's gynecologist, and the consulting interventional radiologist, the patient was discharged due to the fact that she was hemodynamically stable. The patient was followed closely on an outpatient basis. The intermittent spotting continued as did her complaint of a constant throbbing sensation.

One month following her presentation to the ER, she underwent a CT angiogram of the abdomen and pelvis (Fig. 2) which included a subsequent volume rendered 3D reconstruction (Fig. 3). This study revealed a tangle of vessels in the right uterine fundus with early filling of the right arcuate and iliac veins. After a full discussion of the potential risks, benefits, and alternatives, the patient elected to undergo uterine artery embolization as opposed to a hysterectomy in an effort to preserve her fertility. Diagnostic angiograms of the bilateral internal iliac arteries followed by

selective angiograms of the bilateral uterine arteries were performed. A tangle of vessels in the right hemipelvis was again demonstrated with a dominant arterial supply from the right uterine artery (Fig. 4A). Bilateral uterine artery embolization was performed utilizing 500–700 μm Embospheres (Merit Medical Systems, South Jordan, UT). The procedure was technically successful (Fig. 4B). The patient complained of mild pelvic cramping following the procedure which resolved with the use of Tylenol. Her symptoms of intermittent spotting and the constant throbbing sensation abruptly ceased. She successfully delivered a healthy baby boy at 39-week gestation via an emergent caesarian section due to a prolapsed umbilical cord 17 months after undergoing the uterine artery embolization.

Discussion

Uterine arteriovenous malformations (AVMs) are an uncommon, however, potentially fatal cause of vaginal bleeding. The reported incidence is among patients who present with menorrhagia. The true incidence is unknown, but there are fewer than 100 cases reported [1–3]. O'Brien et al. [4] proposed a rough incidence of 4.5%, making it an important diagnosis to be considered in women with unexplained vaginal bleeding. The presentation of our patient was

Download English Version:

<https://daneshyari.com/en/article/8825411>

Download Persian Version:

<https://daneshyari.com/article/8825411>

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