Case Report

Postoperative Retroperitoneal Hematoma: A Case of Saw Palmetto and the Importance of Primary Care Intervention

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Abstract

Introduction

A middle-aged male with a history of bilateral inguinal hernia repair was admitted for acute abdominal pain. The patient reported that he took prescribed hydrocodone and a saw palmetto supplement prior to surgery. He denied any recent trauma after the procedure, and he was unable to schedule a follow-up appointment with the surgeon or the primary care physician.

Clinical Findings

Diagnosis: The CT angiography of the abdomen/pelvis was indicative of new interval development of a large left retroperitoneal hematoma. Intervention: No emergent intervention was required following the evaluation by the surgery and interventional radiology (IR) departments. Outcome: There was no evidence of overt bleeding over the 3-day hospital course, and his hemoglobin was within normal limits. The patient was stable for discharge as the hematoma would slowly absorb over the next 2 months.

Conclusions

A retroperitoneal hematoma (RPH) has a multi-factorial etiology, such as endovascular procedures and surgeries. Detection and presentation of an RPH serves as a guide in management. There are various modes of detection. However, a multi-detector computer tomography-angiography (MDCTA) provides greater information in regards to the anatomical etiology and extent of RPH. Despite the common risk factors associated with a RPH, there are understudied and underreported influences of medications and herbal supplements, such as saw palmetto, in the development of this outcome. A large portion of the population consume herbal and/or dietary supplements, which belong to the category of complementary and alternative medicine (CAM). The challenge for health care providers, especially in the primary-care setting, is the unregulated use of herbal supplements and the associated effects. It is imperative for primary-care physicians to recognize these unknown risks and attempt to inquire about supplement use. Future education should be aimed at integrating CAM into the medical curriculum to improve physician-patient interaction in addressing this topic.

Keywords

retroperitoneal hematoma; hematoma; saw palmetto extract; serenoa; dietary supplements, adverse effects; complementary therapies; medical history taking

Introduction

Retroperitoneal hematoma (RPH) should be suspected in patients with abdominal, flank or groin pain, especially when associated with hemodynamic instability. The risk is multi-factorial and includes endovascular procedures, abdominal aortic aneurysm, trauma or surgery. Herein is a case that describes the importance of diagnosis, management and outcomes of RPH and the intersection of complement and alternative medicine in the disease process.

Case Presentation

A middle-aged male with a history of bilateral inguinal hernia repair 1 week prior presented to the emergency department complaining of left-sided abdominal pain. The pain was located in the left lower quadrant, with radiation to the left groin and flank region. The patient had associated nausea, vomiting, subjective fever and chills.

Clinical Findings

Diagnosis

Vital signs were significant for elevated heart rate of 110 beats per minute; the respiratory rate was 19 breaths per minute; his temperature was 98.5° F, and his blood pressure was 133/85 mm Hg. Laboratory data indicated a stable hemoglobin of 14.5 g/dl and a normal basic metabolic profile. Prior to his transfer to our hospital, the patient was evaluated at another facility where a CT angiography of the abdomen/pelvis showed a blush in the right inguinal region. Repeat imaging at our facility was indicative of a new interval development of a large left retroperitoneal hematoma measuring 25 x 14 x 9.2 cm with no active extravasation into the hematoma or bowel obstruction. At the time of admission, the patient reported he took prescribed hydrocodone and saw palmetto to supplement prior to surgery. He denied any recent trauma after the procedure and was unable to schedule a follow-up appointment with the surgeon as directed or with his primary care physician. A physical examination was indicative of a soft abdomen tender to palpation, no distention, bowel sounds that were present and 2 laparoscopic incision sites with no surrounding abnormalities.

Intervention

The patient was seen by general surgery for an acute retroperitoneal hematoma on imaging. The plan was for immediate thromboelastogram (TEG) with platelet mapping, prothrombin time/partial thromboplastin time, International Normalized Ratio, Hemoglobin and Hematocrit (H & H) and an interventional radiology (IR) consult for an angiogram and embolization. He was subsequently evaluated by IR. They determined that there was no discrete vascular injury or active hemorrhage, and if there was concern for an active bleed over the next 24 hours, they would repeat the CT angiogram of the abdomen/pelvis. A re-evaluation would then be indicated.

Outcome

Over the 3-day hospital course, there was no evidence of overt bleeding, and H & H was within normal limits. The patient was stable for discharge, as the hematoma would slowly absorb over the next 2 months with recommendations to avoid sports, exercise and excess walking.

Discussion

A retroperitoneal hematoma (RPH) should be suspected in patients with abdominal, flank or groin pain, especially when associated with hemodynamic instability.[1] The risk is multi-factorial and includes endovascular procedures, abdominal aortic aneurysm, trauma or surgery, as in the case presented. There are various modes of detection, and an ultrasound may be utilized as a preliminary form of assessment, especially if the hematoma or retroperitoneal structures are of substantial size.[1] However, multi-detector computer tomography-angiography (MDCTA) provides greater information in regards to the anatomical etiology and extent of a RPH.[2] MDCTA is considered as the initial imaging modality in hemodynamically stable patients if no contraindications are present, which was utilized in this patient's case.[2,3] Management of a RPH is dependent on the hemodynamic stability. Stable patients can be managed conservatively, as seen in this scenario.[1] However, if this measure fails, an endovascular intervention with intra-arterial embolization of a stent-graft deployment over the injured vessels may be indicated.[1] Despite the common risk factors associated with a RPH, there are understudied and underreported influences of medications and herbal supplements such as saw palmetto. Saw palmetto is an herbal product commonly used to treat benign prostate hypertrophy.[4] It has over a hundred active compounds, and the exact mechanism of action is unknown.[4,5] The supplement has potential anti-androgenic effects and a relatively superior safety profile. It has reported side effects of mild headache, nausea and dizziness.[4,5] There have been reported cases of adverse events associated with saw palmetto, including a case of intra-operative bleeding in the *Journal of Internal Medicine*, wherein the bleeding time was prolonged

and normalized a few days after discontinuing the supplement.[5,6] The challenge for health care providers, especially in the primary-care setting, is of the unregulated use of herbal supplements and the associated effects.[7] It is estimated that approximately half of the population consumes herbal and/or dietary supplements, which belong to the category of complementary and alternative medicine (CAM).[7] There is limited data on dosing, the mechanism of action, safety, efficacy and drug interactions for these supplements. Furthermore, there is a vast underreporting to physicians on the use of alternative therapy supplementation.[7] As such, it is imperative for primary care physicians to recognize these unknown risks and attempt to inquire about supplement use. A recent article from *JAMA* using data from the National Health Interview Survey (NHIS) indicates that 42.3% of the population do not discuss CAM with their primary care physicians.[7] Patient non-disclosure appears to be highly attributed to physicians not asking about CAM use versus other factors. As a result, family medicine should serve as a front line in inquiring about patients' use of CAM, especially in the setting of those undergoing surgery and present for clearance. If a patient has been taking supplements, then the physician should recommend they discontinue taking them a few weeks prior to surgery.[8] In addition, future education should be aimed at integrating CAM into the medical curriculum to improve physician-patient interaction in addressing this topic.[8]

Conclusion

Retroperitoneal hematoma (RPH) has a multi-factorial etiology, such as endovascular procedures and surgeries, as in the case presented. Despite the common risk factors associated with RPH, there are understudied and underreported influences of medications and herbal supplements, such as saw palmetto, in the development of this outcome. A large portion of the population consume herbal and/or dietary supplements, which belong to the category of complementary and alternative medicine (CAM). The challenge for health care providers, especially in the primary-care setting, is the unregulated use of herbal supplements and the associated effects. It is imperative for primary-care physicians to recognize these unknown risks and attempt to inquire about supplement use. Future education should be aimed at integrating CAM into the medical curriculum to improve physician-patient interaction in addressing this topic.

Conflicts of Interest

The authors declare they have no conflicts of interest.

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