Acquired cystic kidney disease: A benign yet potentially fatal condition

Vikrampal Bhatti, Abhilash Koratala, Ashutosh M. Shukla

ABSTRACT

Abstract is not required for Clinical Images

International Journal of Case Reports and Images (IJCRI)

International Journal of Case Reports and Images (IJCRI) is an international, peer reviewed, monthly, open access, online journal, publishing high-quality, articles in all areas of basic medical sciences and clinical specialties.

Aim of IJCRI is to encourage the publication of new information by providing a platform for reporting of unique, unusual and rare cases which enhance understanding of disease process, its diagnosis, management and clinico-pathologic correlations.

IJCRI publishes Review Articles, Case Series, Case Reports, Case in Images, Clinical Images and Letters to Editor.

Website: www.ijcasereportsandimages.com

CLINICAL IMAGE

PEER REVIEWED | OPEN ACCESS

Acquired cystic kidney disease: A benign yet potentially fatal condition

Vikrampal Bhatti, Abhilash Koratala, Ashutosh M. Shukla

CASE REPORT

A 48-year-old African-American male with end stage renal disease (ESRD) on hemodialysis for 14 years developed acute abdominal pain during his outpatient dialysis session and was sent to the emergency room. The patient was found to be hypotensive with a blood pressure of 93/72 mmHg requiring fluid resuscitation, which later deteriorated further requiring vasopressors. He was found to have acute anemia with a hemoglobin level of 7.5 g/dL. Abdominal computed tomography (CT) scan revealed large hemoperitoneum with a right perinephric sentinel clot, bilateral multiple renal cysts and features suspicious of bleeding originating from the upper anterior pole of right kidney (Figure 1). The largest of the cysts measured ~3.2 cm in diameter. Renal angiogram showed active ongoing extravasation from multiple branches of the right renal artery (Figure 2). Selective right renal artery embolization was unsuccessful. An emergent laparotomy revealed a torn right renal capsule with subcapsular hemorrhage and a 1.4 cm ragged defect in the inferior portion of the kidney. He underwent right nephrectomy and pathology was negative for malignancy. It essentially showed end stage kidney with arteriolonephrosclerosis, tubular atrophy, interstitial fibrosis, thyroidization, cysts and chronic interstitial inflammation with associated intra-parenchymal and perirenal hemorrhage. Patient refused blood transfusion because of religious reasons and unfortunately died of hemorrhagic shock after the surgery.

Figure 1: (A) Abdominal computed tomography scan one year prior to presentation showing bilateral renal cysts (arrows) (B) Abdominal computed tomography scan with contrast demonstrating large hemoperitoneum (white arrows) and features suggestive of bleeding originating from the upper anterior pole of right kidney, with extravasation of contrast (black arrow).

Figure 2: Renal angiogram demonstrating the bleeding vessels inside the right kidney.

Vikrampal Bhatti¹, Abhilash Koratala¹, Ashutosh M. Shukla¹

Affiliation: ¹University of Florida, Gainesville, USA.

Corresponding Author: Abhilash Koratala, MD, Division of Nephrology, Hypertension and Renal Transplantation, P.O. Box 100224, Gainesville, FL 32610, USA; Email: akoratsla@ufl.edu

Received: 01 March 2017

Accepted: 13 July 2017

Published: 01 August 2017

DISCUSSION

Acquired cystic kidney disease (ACKD) in patients with advanced chronic kidney disease (CKD) and end

stage renal disease, unlike other forms of cystic renal diseases, is largely considered a benign pathology with no clear recommendations for follow-up care. Our case represents a rare but fatal complication of ACKD. Definition of ACKD usually requires three or more cysts in each kidney in a patient with CKD or end stage renal disease who does not have a hereditary cause of cystic disease such as autosomal-dominant polycystic kidney disease or tuberous sclerosis [1]. It is estimated that hemorrhagic cysts are seen in approximately 50% of the patients with ACKD and perinephric hematomas in about 13% of patients [2], which can generally be managed conservatively. Severe bleeding can be fatal and may require interventions such as transcatheter embolization or surgery. More studies are needed to determine the benefit of periodic screening in patients with ACKD to prevent potentially fatal complications.

Without clear guidelines for follow-up and majority of the studies on cystic renal diseases excluding patients with ACKD, the true incidence of complications in these patients is not known. We believe an observational cohort study on the lines of Bosniak classification, in patients with advanced CKD and end stage renal disease should be considered such that natural history of this condition, including potential complications e.g. malignancy [3] and bleeding can be better predicted.

CONCLUSION

Acquired cystic kidney disease (ACKD) is characterized by development of numerous cysts in both the kidneys in individuals without history of hereditary cystic disease. Hemorrhagic cysts can sometimes lead to severe bleeding that can be life-threatening. High index of suspicion is required for this condition when end stage renal disease patients present with abdominal pain and drop in hemoglobin. Until clear guidelines are established, it would be prudent to monitor ACKD patients with periodic renal imaging.

Keywords: Acquired cystic kidney disease, Hemoperitoneum, Renal disease

How to cite this article

Bhatti V, Koratala A, Shukla AM. Acquired cystic kidney disease: A benign yet potentially fatal condition. Int J Case Rep Images 2017;8(8):561–563.

Article ID: Z01201708CL10129VB

doi:10.5348/ijcri-201719-CL-10129

Author Contributions

Vikrampal Bhatti – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Abhilash Koratala – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Ashutosh M. Shukla – Analysis and interpretation of data, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

Copyright

© 2017 Vikrampal Bhatti et al. This article is distributed under the terms of Creative Commons Attribution License which permits unrestricted use, distribution and reproduction in any medium provided the original author(s) and original publisher are properly credited. Please see the copyright policy on the journal website for more information.

REFERENCES

1. Levine E. Acquired cystic kidney disease. Radiol Clin North Am 1996 Sep;34(5):947–64.
2. Choyke PL. Acquired cystic kidney disease. Eur Radiol 2000;10(11):1716–21.
3. Bhatti V, Vangapalli A, Bhattacharya D, Koratala A. Renal cell carcinoma of the native kidney in a renal transplant recipient. Int J Case Rep Images 2017;8(2):165–7.

Access full text article on
other devices

Access PDF of article on
other devices

Edorium Journals: An introduction

About Edorium Journals

Edorium Journals is a publisher of international, high-quality, open access, scholarly journals covering subjects in basic sciences and clinical specialties and subspecialties.

Invitation for article submission

We sincerely invite you to submit your valuable research for publication to Edorium Journals.

Why should you publish with Edorium Journals?

In less than 10 words: "We give you what no one does".

Vision of being the best

We have the vision of making our journals the best and the most authoritative journals in their respective specialties. We are working towards this goal every day.

Exceptional services

We care for you, your work and your time. Our efficient, personalized and courteous services are a testimony to this.

Editorial review

All manuscripts submitted to Edorium Journals undergo pre-processing review followed by multiple rounds of stringent editorial reviews.

Peer review

All manuscripts submitted to Edorium Journals undergo anonymous, double-blind, external peer review.

Early view version

Early View version of your manuscript will be published in the journal within 72 hours of final acceptance.

Manuscript status

From submission to publication of your article you will get regular updates about status of your manuscripts.

Our Commitment

Six weeks

We give you our commitment that you will get first decision on your manuscript within six weeks (42 days) of submission. If we fail to honor this commitment by even one day, we will give you a 75% Discount Voucher for your next manuscript.

Four weeks

We give you our commitment that after we receive your page proofs, your manuscript will be published in the journal within 14 days (2 weeks). If we fail to honor this commitment by even one day, we will give you a 75% Discount Voucher for your next manuscript.

Favored author program

One email is all it takes to become our favored author. You will not only get 15% off on all manuscript but also get information and insights about scholarly publishing.

Institutional membership program

Join our Institutional Memberships program and help scholars from your institute make their research accessible to all and save thousands of dollars in publication fees.

Our presence

We have high quality, attractive and easy to read publication format. Our websites are very user friendly and enable you to use the services easily with no hassle.

Something more...

We request you to have a look at our website to know more about us and our services. Please visit:
www.edoriumjournals.com

We welcome you to interact with us, share with us, join us and of course publish with us.

Edorium Journals: On Web

Browse Journals

CONNECT WITH US