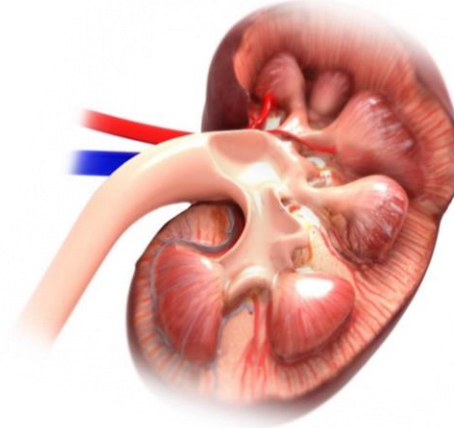


Literature Review

Autopsy of 50 subjects (1975): Renal CM is 6th most common site for dissemination

Two Autopsy reports (1980): Renal CM present in 35-60% of fatal DM disease

CDC: Acknowledges Underestimated Renal CM Reports



Methods

- Approval was obtained from the Institutional Review Board of Kern Medical.
- Retrospective review of the patient's record was performed.

Objectives

At-risk groups for Renal CM:

- Expectant mothers (3rd trimester)
- Uncontrolled Diabetes or HIV disease
- On Tumor necrosis factor- α inhibitors
- African American or Filipino ancestry
- Renal transplant recipients (additional 5% risk)

Clinical presentation of Renal CM:

- Largely depends on location affected and amount of tissue destruction
- May Wax & Wane for Years/Asymptomatic/Vague
- CVA TTP, Fatigue, Urinary Complaints

Laboratory Findings

- Elevated ESR, CRP, CF titers
- Histopathology of abscess or urine fluid specimens may reveal mature spherules of *C immitis* with endospores which are diagnostic for CM disease.
- Urine specimens do not always yield positive immunodiffusion or complement fixation results, despite positive GU infection with CM.
- Elevated serum coccidioidal titers are both sensitive and specific for CM.

Case Presentation

52-year-old Hispanic Male with DMII was diagnosed with primary cavitory CM at another institution presented to KM with:

- CVA tenderness x 1 month
- Fatigue
- Unintentional Weight Loss of 20 pounds

VS: 153/98 mm Hg | 76 HR | 24 RR | 36.4 °C T | 99% RA

PE: Unremarkable except for Left CVA TTP

Significant Labs:

- Abs Eos 383 cells/ μ L
- A1c: 11%,
- ESR 25 mm/h ,
- CRP 3.5 mg/L,
- CM CF titers \geq 1:512,
- UA (+) leukocyturia 5 to 10 cells, negative for proteinuria and glycosuria
- Fluoroscopic-guided drainage of 800 cc of purulent fluid surrounding the left kidney

Aspirate grew *C immitis*



Results

4 yrs Prior to KM

- 1-ary Cavitory CM Diagnosed by Outside Facility**

1 Month Prior to KM

- CM exacerbation**
- Hospitalization Video-assisted thoracoscopic surgery for ruptured cavitory lesion (coccidioidal empyema)**
- A1c 15.0**

36 Months EOT

- Renal Parenchymal Abscess**
- Antifungal Tx**
- Clinical, Radiologic & Serologic resolution of disease**

Conclusion

Fluconazole 800 x36 months

Pigtail Catheter x6 months

Nephrostomy x7 months

- CVA tenderness improved in 1 month
- Renal Function preserved throughout
- Cocci titers \geq 1:512 to <1:2 in 1 year

- Prospective trials for soft tissue CM: Response rates to azole therapy of 25%- 91% for disseminated disease.
- Of these, 60% relapsed within 45 days after cessation
- 11% relapsed 12 months after cessation
- Expert opinion may be the only resource available for treatment recommendations as in this case.
- Guidelines on Renal CM Dx and Tx are needed

References

- Coleman J, Civelli VF, Sharma R, Heidari A, Kuran R, Johnson R. A Case Report of Coccidioidomycosis in the Renal Parenchyma of Unusual Severity. *J Investig Med High Impact Case Rep.* 2021 Jan-Dec; 9: 2324709621995331
- Galgiani JN, Ampel NM, Blair JE, et al. 2016 Infectious Diseases Society of America (IDSA) clinical practice guideline for the treatment of coccidioidomycosis. *Clin Infect Dis.* 2016;63:e112-e146.
- Centers for Disease Control and Prevention. About valley fever (coccidioidomycosis). Accessed January 4, 2020 <https://www.cdc.gov/fungal/diseases/coccidioidomycosis/definition.html>
- Weinberg MG, Galgiani JN, Switzer RW, et al. *Coccidioidomycosis of the urinary bladder.* Paper presented at: Proceedings of the 4th International Conference on Coccidioidomycosis; March 14-17, 1984; San Diego, CA.
- Peterson EA. Genitourinary coccidioidomycosis. In: DA Stevens, ed. *Coccidioidomycosis. Current Topics in Infectious Disease.* Springer; 1980:225-229.
- Halsey ES, Rasnake MS, Hospenthal DR. Coccidioidomycosis of the male reproductive tract. *Mycopathologia.* 2005;159:199-204.
- Conner WT, Drach GW, Bucher WC., Jr Genitourinary aspects of disseminated coccidiomycosis. *J Urol.* 1975;113:82-88.
- Smith MA, Anderson AE, Kostroff K. An unusual case of coccidioidomycosis. *J Clin Microbiol.* 1994;32:1063-1064.
- Rothenberg ME. Eosinophilia. *N Engl J Med.* 1998;338:1592-1600.

Disclosures

- Mayne Pharma
- Horizon Pharma
- F2G Ltd and F2G Biotech GmbH