

9

AN UNUSUAL AND FATAL CASE OF CRYPTOCOCCAL INFECTION IN A RENAL TRANSPLANT RECIPIENT: Yorgi Al Azzi, Ibadete Sulejmani, Geoffrey Dube, Department of Medicine, Columbia University, New York, NY, USA

Disseminated cryptococcal infections are a known complication of immunosuppression. However, the presentation can be atypical and can lead in some cases to fatal outcomes. We present here a case of a renal transplant patient who presented for evaluation of abdominal pain, was suspected to have military TB but succumbed to splenic rupture in the setting of disseminated cryptococcal infection.

58 year-old male ESRD secondary to type 2 DM received a living related renal transplant from his daughter (alemtuzumab induction, maintained on tacrolimus and mycophenolic acid). Seven months post transplant, he experienced epigastric pain with dry heaves for 1 week, and noted that this pain was persistent and more intense than his usual reflux. On presentation, CT of the abdomen was positive for military lesions at the lung base suspicious for TB. His review of systems was positive for night sweats. He worked at a prison and had never had a positive PPD. CT chest and abdomen showed military nodules throughout the lungs, two cavitary lesions on the peripheral lung and splenomegaly with nonspecific patchy hyperdense foci likely due to blood products. Sputum cultures were negative for AFB. He was started empirically on anti-TB therapy. One day later, he developed hypotension associated with an acute drop in hemoglobin from 11 g/dL to 8.5 g/dL. He had a PEA arrest and expired. The next day, his serum cryptococcal antigen was reported to be positive with a titer of >1:1024. His blood and sputum cultures remained negative for AFB. Autopsy showed diffused spleen with hemorrhagic infarcts and splenic rupture, necrotizing cryptococcal pneumonia with military lesions through the parenchyma and pleura, necrotizing cryptococcal hepatitis, cryptococcal myocarditis, and infiltration of the renal allograft with *Cryptococcus*, consistent with disseminated Cryptococcal infection.

To our knowledge, this is the first case of disseminated cryptococcal infection in a renal transplant recipient causing death by splenic rupture. This case highlights the need to be aware of atypical presentations of cryptococcal infection in immunosuppressed patients, especially renal transplant recipients.

10

HEMORRHAGIC SHOCK AND HEMOPERITONEUM AS A FATAL MANIFESTATION OF GRANULOMATOSIS WITH POLYANGIITIS

Emad Al Jaber, Gaurav Jain, Souheil Saddekni.

University of Alabama Hospital, Birmingham, AL, USA

Granulomatosis with polyangiitis (GPA) is systemic vasculitis characterized by inflammation of the small vessels. However, GPA rarely affects the gastrointestinal tract (GIT) leading to bleeding. Here we report the unusual case of GPA that presented with hemorrhagic shock and hemoperitoneum related to mesenteric aneurysmal rupture.

Case: A 69-year-old lady presented to outside hospital with exertional dyspnea and dark urine. Exam showed decreased breathing sounds at lung bases. Laboratory findings were remarkable for: creatinine 6.5 mg/dl, Hb (9.6 g/dl), and positive C-ANCA & Anti PR3 antibodies. UA showed dysmorphic RBC & RBC casts. Chest CT was consistent with pulmonary hemorrhage. Kidney biopsy revealed pauci-immune necrotizing and crescentic GN. Patient was treated with high dose IV steroid and was transferred to our center. Soon after her arrival, her hemodynamics deteriorated and the Hb dropped suddenly and significantly from 9.7 to 7.0 g/dl. Subsequently, she was resuscitated with RBC transfusion and was intubated. Patient was treated with IV steroids, plasma exchange, cyclophosphamide and RRT was initiated. An emergent mesenteric angiogram showed multiple aneurysmal dilations within the mesenteric artery distribution accompanied with active bleeding resulting from aneurysmal rupture. She was treated successfully with coil embolization of the bleeding aneurysm. Due to abdominal compartment syndrome concern, she underwent exploratory laparotomy where a large volume (6 liters) of blood was evacuated. The patient continued to deteriorate with worsening hypoxia. Chest CT scan revealed recurrent pulmonary hemorrhage. At this point, the care was withdrawn per family request, the patient expired soon after.

Conclusion: the GIT involvement in GPA may lead to aneurysmal dilations and subsequent life-threatening rupture and fatal bleeding. Therefore, we propose that any unexplained abdominal symptoms and/or unexplained blood loss in GPA patients warrant an aggressive work up using CT angiogram and immediate therapeutic intervention in order to avoid catastrophic outcomes.

11

DEMENTIA AND CATHETER DYSFUNCTION AS UNDER IDENTIFIED AND DOCUMENTED RISK FACTORS FOR CATHETER RELATED BLOOD STREAM INFECTIONS Baha Al-Abid, Ryann Sohaney, Khalid Alamiri, Lalathaksha Kumbar, Vivek Soi, Jerry Yee. Henry Ford Hospital, Detroit, MI, USA

Hemodialysis associated infections are a prominent cause of morbidity and mortality in patients with end-stage renal disease, second only to cardiovascular events, along with increased costs and hospitalization. Among vascular access types, central catheters have the highest risk of infection.

We conducted a retrospective study involving 70 patients with dialysis catheter related blood stream infection (CABSI) to identify certain risk factors for infection. After IRB approval, Clinical variables collected included age, gender, race, prior tissue plasminogen activator use, number of prior catheter exchanges, and diagnosis of dementia.

We compared the prevalence of those risk factors in the study population with that of the general population based on prior published data that shared the same data collection methodology.

A total 10 patients were diagnosed with dementia and the proportion of dementia was 14.29%. This was significantly higher than the general prevalence rate of 4% found on a cohort study of 16694 patients (p-value < 0.0001). There were 53 patients who had catheter replacements/exchanges due to catheter thrombosis, the average number of replacement/exchange was 2.57 per patient. The catheter thrombosis rate of 75.7% was significantly higher than the general prevalence of catheter thrombosis of 51% based on a cohort of over 50000 patients (p-value < 0.0001).

Dementia and prior catheter dysfunction may be under recognized and under documented risk factors for CABSI. Patients with dementia may have higher rates of CABSI due to lack of proper care and hygiene technique. Improved identification may lead to earlier intervention which may ultimately lead to lower mortality, hospitalizations and cost of care. Prevalence based on chart review seems to be much lower than prevalence based on more objective methodology, and implementation of more sensitive methods for detection will likely result in better patient outcomes.

12

HEPATITIS C VIRUS PREVALENCE IN HEMODIALYSIS PATIENTS IN QATAR: AN EPIDEMIOLOGIC STUDY. Fadwa Alali¹, Fatma Shebi², Abdullah Hamad¹, Mohamed Elesnawi¹, Rania Ibrahim¹, Saad Alkaabi¹, Moutaz Derbala¹. 1- Hamad General Hospital, Doha, Qatar. 2- Yale School of Public Health, New Haven, CT.

HCV is still prevalent among hemodialysis (HD) patients despite the introduction of strict hygienic precautions and reduction in blood transfusion with the introduction of erythropoietin stimulating agents. The prevalence rate of hepatitis C in Qatar was determined to be 0.8% in average-risk and 3.2% in high-risk individuals (overall ~2%). HCV prevalence was almost 45% in HD patients according to reports from Qatar in 1995.

Under IRB approval, we studied the prevalence of HCV infection in ESRD patients on HD across Qatar, and the characteristics and predictors of HCV infection among patients on regular dialysis.

Prevalence of HCV was 8.4% among HD patients. Prevalence was similar in Qatari and expatriates (7.1% vs. 9.6%, p Value=0.225). Burden of HCV infection was significantly higher in HD patients compared to the general population (8.4% vs. 2%, pValue <0.0001). Female were more likely to be HCV positive compared to males (11.2% versus 6.3%, respectively p=0.027). In multivariable analysis, only female gender and with obstructive ESRD causes (OR= 4.54, 95% CI=1.55,13.27) were more likely to be HCV positive.

Strict adherence to universal infection control precaution, without use of dedicated machines for HCV patients, reduced the risk from 40% in 1994 to 8.5% in 2015. HD patients is still having 4-fold higher risk of HCV infection than the total population. Blood transfusion and duration on dialysis became less important risk factors.