MYCOBACTERIUM AVIUM COMPLEX (MAC) INFECTION IN A PEDIATRIC RENAL TRANSPLANT RECIPIENT

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A 17 year old African-American female with history of living donor renal transplant performed at 7 years of age due to congenital renal dysplasia presented with complaints of sore throat, runny nose, difficulty swallowing, malaise, weight loss and a mass in her right breast. Her renal graft function post-transplant was stable on tacrolimus, mycophenolate mofetil (MMF), and prednisone. Physical examination revealed normal body temperature, blood pressure of 138/75 mm Hg, diffuse lymphadenopathy and tender bilateral breast masses. White cell count was 10,000 with 68 neutrophils, 6 bands, 13 lymphocytes, 12 monocytes and 1 reactive lymphocyte. Hemoglobin and hematocrit were (mg/dl) 12.1 and 38.4, respectively. Serum creatinine (mg/dl) rose to 2.3 from a baseline value of 1.8; uric acid level was 8.8 mg/dl, LDH was 144, CMV, BK polyoma virus, HIV, EBV studies and PPD test were negative. Abdominal ultrasound revealed mesenteric lymphadenopathy, splenomegaly and poor cortico-medullary differentiation of the transplant kidney. Transplant kidney biopsy showed pre-existing chronic allograft nephropathy and no evidence of acute rejection. CT scan showed bilateral supraclavicular and axillary lymphadenopathy and a large intra-abdominal mass consistent with conglomeration of lymph nodes. Excisional cervical lymph node and bone marrow biopsy showed 4+ AFB and non-caseating granuloma comprising mainly of histiocytes and few lymphocytes. A diagnosis of MAC infection was established. Discontinuation of immunosuppression coupled with rifabutin, clarithromycin and ethambutol resulted in no change in clinical condition. Subsequent addition of amikacin and gamma interferon resulted in improvement of symptoms. MAC infections are extremely rare in pediatric kidney transplant recipients. Treatment of MAC infections in these patients is challenging, consisting of a combination of antimycobacterial therapy and reduction of immunosuppressive therapy.