A Case of Pediatric Focal Xanthogranulomatous Pyelonephritis: Diagnosis by Percutaneous Renal Biopsy and Successful Conservative Treatment

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Introduction : Xanthogranulomatous pyelonephritis (XPN) is a rare severe form of chronic PN, characterized by destruction of the renal parenchyme replaced by granulomatous tissue containing histiocytes and foamy lipid-laden macrophages. It occurs predominantly in adult women and rarely in children. Symptoms are usually nonspecific and preoperative diagnosis is difficult. Nephrectomy is the treatment of choice in diffuse form. Here is a rare pediatric case of focal XPN, that was diagnosed by percutaneous biopsy and successfully treated with conservative treatment. Clinical case: A 14-year-old boy was transferred for anorexia, 10 kg of weight loss in a month and suggested cystic malignant tumor on abdominal CT. The vital sign was stable without fever. His body weight decreased from 74 to 64 kg in a month. He complained of mild right flank pain and tenderness. The laboratory finding was as following. Hb 14 g/dL, Ht 41%, WBC 6600/uL (P 73%, L 18%, M 6%), PLT 562k/uL, ESR 6 mm/hr, CRP 0.6 mg/dL, BUN/Cr 11/0.9 mg/dL, TP/Alb 9.0/4.1 g/dL. Urinalysis normal, Urine culture *Enterococcus faecalis* (5×104 CFU/mL). Outside CT suggested focal PN with large abscess invading adjacent liver, rather than malignancy. Renal US guided needle aspiration with biopsy was done. Bloody pus (15 mL) was aspirated and empiric antibiotics (ceftriaxone) was given. *Staphylococcus aureus* (5×104 CFU/mL) was cultured from the aspirated pus and clindamycin was added according to the antibiotic sensitivity result. Renal biopsy revealed XPN. After a week, the abscess was not reduced on the follow-up CT and the second needle aspiration (17 mL) was done. After 2 weeks of antibiotic treatment, the abscess was not reduced on renal MRI. Vancomycin was added and US guided pigtail catheter was inserted, which was self extracted after 2 days. Anorexia improved and the body weight gradually increased. The follow-up renal US at 3 weeks showed half reduction in size of the lesion and he was discharged in good condition with oral clindamycin. It nearly disappeared on the follow-up MRI taken 6 weeks after discharge and the antibiotics was discontinued. For 1 year of follow up, it hasn.