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SALMONELLA OSTEOMYELITIS IN A RENAL TRANSPLANT RECIPIENT. Brief Report:

Arturo Wong, Rafael García, Carlos Henriquez, Bernardo Rodríguez-Iturbe.

From the Renal Service and Laboratory, Department of Medicine, Hospital Universitario. Apartado Postal 1430. Maracaibo, Zulia 4001-A, Venezuela.

ABSTRACT

This report concerns a renal transplant recipient who developed osteomyelitis due to Salmonella enteritidis serotype Dublin. The patient is a 43-year aold man with chronic renal failure due to nephrosclerosis, who developed unexplained fever one month after receiving a kidney from his father. Salmonella Dublin, was isolated from 3 blood cultures. He responded well to oral chloramphenicol therapy which was maintained for 4 weeks. He remained asymptomatic for 1 month. At this time he again presented fever and a radiolucent bone lesion was found in the tibia. Salmonella Dublin was cultured from the blood, as well as from the bone lesion. The patient responded well to surgical treatment of the osteomyelitis and therapy with ampicillin and trimetroprim-sulphamethoxazole which was maintained for 3 months.

It is suggested that salmonella infections require prolonged treatment in inmunosuppressed patients and that it may be advisable to investigate the carrier state in transplant candidates in geographical areas where salmonellosis is endemic.

CASE REPORT

Increased susceptibility to micotic, viral and bacterial infections is a well known characteristic of renal transplant receptors, but certain specific infections are uncommon. Salmonella infections are rare and, when present, are usually located in the urinary tract (1). To our knowledge, salmonella osteomyelitis has been recognized previously in only one transplant recipient in a recent revision (2), and the clinical aspects of the case were not given. This communications describes the features of a patient in our series of 152 renal transplants who had salmonella osteomyelitis.

The patient is a 43 year old male with chronic renal failure secondary to nephrosclerosis, who received the kidney from his father. He does not have sickle cell anemia or its trait. He received standard immunosuppressive therapy (azathioprine 3 mg/kg/day and prednisone 100 mg/day), but he had an acute rejection episode 2 days after transplantation. Rejection responded to additional steroid therapy (250 mg prednisone daily for 3 days) and prednisone was reduced to 0.20 mg/kg/day. He was discharged with normal renal function. One month after transplantation, he suddenly developed a 40°C temperature and pain in both knees. Physical examination did not disclose any relevant findings. Serum creatinine was 1.0 mg/dL, white blood cell count 6.250 per mm^3 with 81% segmented neutrophils and 19% lymphocytes. Sedimentation rate (1 hour) was 30 mm, uric acid 4.3 mg/dL and proteinuria was 1.4 g per 24 hours. X-rays of the knees and legs were within normal limits.

The remaining hematologic and biochemical work-up was within normal limits. Widal serologic test demonstrated 1:80 and 1:400 antibody titers against H and O antigens, respectively. Salmonella enteritidis serotype Dublin, was isolated from 3 blood cultures three urine cultures and 3 stool cultures were negative. The gall bladder was within normal limits by oral cholecystography and ultrasound studies. The patient was placed on chloramphenicol 500 mg every 6 hours and the fever disappeared after 72 hours. The therapy was maintained for 4 weeks, the patient remained asymptomatic and 3 blood cultures were negative. The patient was discharged from the hospital.

The course was uneventful until one month later when fever reappeared and he developed a painful, swollen and erythematous area of about 2-2,5 inches in diameter in the upper third of the right leg. New X-ray studies showed a radiolucent area in the tibia (figure 1), not present in the radiologic study done previously, at a level corresponding to the subcutaneous inflammation described above. Salmonella Dublin was isolate again from a blood culture. Surgical treatment of the bone lesion was performed

under local anesthesia and the material obtained also yielded S. enteritidis, ser. Dublin. The patient was placed on ampicillin (1 g every 6 hours) and trimethoprim sulfamethoxazole (160 mg trimethoprim and 800 mg sulfamethoxazole, twice a day) with remission of the fever after 4 days. This treatment was maintained for 3 months. The patient has remained asymptomatic in subsequent follow-up, the last one 17 months after renal transplant.

The following comments may be appropriate:

1) Osteomyelitis developed and sepsis with salmonella recurred after what seemed to be adequate treatment. This would suggest that treatment

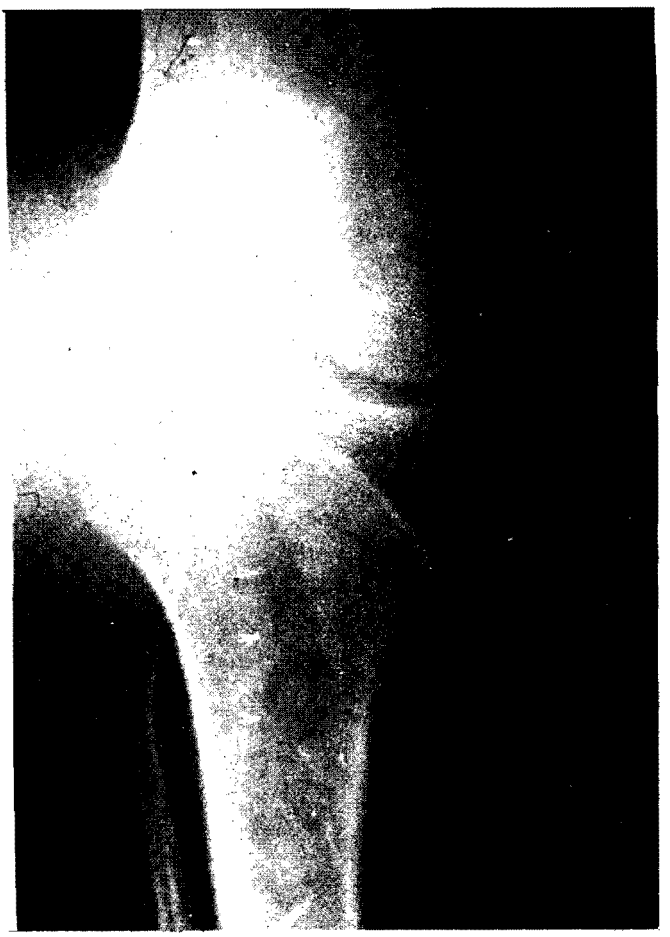

Fig. 1.– Osteomyelitis in the tibia was suggested by the radiolucent area indicated by the arrow heads. The lesion was treated surgically. Salmonella enteritidis serotype Dublin was isolated in the cultures.

should be maintained for an extended period of time in immunosuppressed patients.

2) In areas where salmonellosis is endemic it may be worthwhile to investigate the carrier state in renal transplant candidates.

RESUMEN

Osteomielitis por salmonela en un paciente con transplante renal. *Wong, A., Servicio de Nefrología, Hospital Universitario de Maracaibo. Maracaibo, Venezuela. García, R., Henríquez, C., Rodríguez-Iturbe, B., Apartado Postal 1430. Maracaibo 4001-A.* **Invest Clín** *Vol 26(4): 231-234, 1985.–* Este reporte se refiere a un caso de osteomielitis debida a Salmonella enteriditidis serotipo Dublin, en un trasplantado renal. El paciente, de 43 años de edad, con insuficiencia renal crónica secundaria a nefroesclerosis, desarrolló fiebre de causa no conocida un mes después de haber recibido un riñón de su padre. En tres hemocultivos hechos subsecuentemente al trasplante se evidenció la presencia de Salmonella Dublin. El paciente respondió satisfactoriamente al tratamiento por vía oral con cloramfenicol, el cual fué mantenido por 4 semanas. Luego de un mes asimtomático, el paciente regresó con fiebre y una lesión radiolúcida en la tibia. Tanto de la sangre como de la lesión ósea se aisló Salmonella Dublin. El paciente respondió nuevamente al tratamiento, el cual consistió en esta ocasión en curetaje de la osteomielitis y terapia con ampicilina y trimetoprim-sulfametoxazol por 3 meses. Se sugiere que las infecciones por salmonella en pacientes inmunosuprimidos requieren tratamiento prolongado y que es conveniente investigar el estado de portador sano en candidatos a trasplante renal, en especial, en aquellas áreas donde la salmonelosis es endémica.

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