ANKEM Derg 15 (No. 1): 37-39 (2001)

THORACAL SPINAL EPIDURAL BRUCELLAR ABSCESS (A CASE REPORT)

Özlem KANDEMİR, Gülden ERSÖZ, Ali KAYA

SUMMARY

A 50 years old female patient was admitted to the hospital with the complaints of fever, sweating, fatigue and back pain lasting for one month. Her temperature was 38°C. There were no pathological signs except the absence of abdominal skin reflex on the right side. *Brucella* spp. grew in the blood culture and magnetic resonance imaging (MRI) showed spinal epidural abscess at T9-10 level. The patient was treated with streptomycin 1 g/d for 21 days plus doxycycline 100 mg orally every 12 hours, for three months.

ÖZET

Torakal spinal epidural brusella absesi. Bir olgu sunumu.

50 yaşında kadın hasta, bir aydır devam eden sırt ağrısı, yorgunluk, ateş, terleme şikayetleri ile servise yatırılmıştır. Yatışında hastanın ateşi 38°C idi. Fizik muayenesinde sağ taraf karın cildi refleksinin alınamaması dışında patolojik bulgu yoktu. Kan kültüründe *Brucella* cinsi bakteri üremiş, magnetik rezonans görüntüleme tetkikinde T9-10 seviyesinde spinal epidural abse saptanmıştır. Hasta 21 gün süreyle 1 g/gün streptomisin ve üç ay süre ile 12 saatte bir 100 mg doksisiklin po verilerek tedavi edilmiştir.

INTRODUCTION

Complications of brucellosis may affect almost any organ system such as skeletal, neurologic, genitourinary, cardiovascular, gastrointestinal, hematologic and cutaneous. Neurological involvement is infrequent, affecting 2% to 5% of patients in the from of meningitis, radiculitis, and neuritis (5). Epidural abscess that generally requires surgical drainage is an exceptional clinical picture reported in less than 1.5% of neurological complications, and is generally associated with spondylitis (1). In this report we describe a case of brucellosis complicated with spinal epidural brucellar abscess with minimal neurologic findings, which was treated with medication.

CASE REPORT

A 50-years-old female patient was admitted to the hospital with complaints of back pain, fatigue, fever and night sweating lasting for one month. On physical examination her temperature was 38°C, arterial blood pressure 140/110 mmHg and pulse rate 104 per minute. There were no pathological sings except the absence of abdominal skin reflex on the right side. Laboratory examination showed white blood count of 4500/mm^3 (70% polymorphonuclear leucocytes, 28% lymphocytes, 2% monocytes), erythrocycte sedimentation rate 77 mm/hour, AST 32 U/lt, ALT 23 U/lt, GGT 31 U/lt, and total protein 6.4 g/dl and albumin 3.5 g/dl. The findings of fever, sweating and back pain, endemic nature of brucello-

Mersin Üniversitesi Tıp Fakültesi, Klinik Bakteriyoloji ve İnfeksiyon Hastalıkları Anabilim Dalı, Zeytinlibahçe, Mersin.

sis in our country and the standard tube agglutination titre of 1/1280 led us to consider brucellosis as the most probable diagnosis. Treatment was started after the blood cultures were obtained. Treatment regimen was streptomycin 1 g IM daily and doxycycline 100 mg po bid. The diagnosis was confirmed by growing of *Brucella* species in the blood culture obtained before the initiation of treatment. The patient's fever declined at the fifth day of the treatment. Back pain diminished gradually. A thoracolumber MRI was performed because of the unilateral absence of abdominal skin reflex, which showed spondylodiscitis and spinal epidural abscess at T9-10 level (Figure 1). The patient was consulted by the neurosurgery department. Surgical intervention was not considered because there was no significant neurological deficit. The treatment was continued by close monitorization for neurological signs and prolonged for up to three months with streptomycin 1 g/d for 21 days plus doxycycline 100 mg orally every 12 hours for three months. At the end of the treatment control MRI showed recovery of the spinal epidural abscess (Figure 2). Abdominal skin reflex became positive one month later.

DISCUSSION

Brucellosis is still an important infectious disease being wide spread as endemic and sporadic cases in Turkey. Patients with brucellosis generally have nonspecific symptoms such as fever, weakness, and sweating and generalised musculoskeletal complaints. Brucellosis should be suspected in the presence of these nonspecific symptoms and signs in countries where the disease is endemic. Although serologic tests such as standard tube agglutination is widely used, definitive diagnosis is made by recovering the organism from blood, fluid or tissue specimens (5). Spinal epidural abscess is a rare complication of brucellosis and may arise from contiguity to spondylits, or alternately, it may result from hematogenous spread of the bacteria. It can be difficult to diagnose because of its nonspecific and variable clinical picture (2). Direct radiography and computed tomography (CT) may not be always helpful; MRI is the method of choice in the differential diagnosis of epidural abscess. Spinal epidural abscess requires surgical drainage in patients with neurologic deficit(s) (3). It has been reported that neurologically intact patients could be treated without surgical intervention (2,4), however, treatment of the patients with spondylitis or spinal epidural abscess must be on a prolonged basis (4). This case suggests that spinal epidural abscess with minimal neurologic findings can also be managed nonsurgically.

REFERENCES

1- Ariza J, Gudlio F, Valverde J, Pallarés R, Fernández-Viladrich P, Rufi G, Espadaler L, Fernández-Nogues F: Brucellar spondylitis: A detail analysis based on current findings, *Rev Infect Dis 7:* 656 (1985).

2- Nussbaum ES, Rigamanti D, Standinof H, Numaguchi Y, Wolf AL, Robinson WL: Spinal epidural abscess: A report of 40 cases and review, *Surgical Neurology 48:* 225 (1992).

3- Özateş M, Özkan Ü, Bükte Y, Ceviz A, Sari İ, Şimşek M: Lumbar epidural brucellar abscess causing nerve root compression, *Spinal Cord 37:* 448 (1999).

4- Pérez-Calvo J, Matamala C, Sanjoaquin I, Rodriguez-Benavente A, Ruiz-Laiglesia F, Bueno-Gomez J: Epidural abscess due to acute Brucella melitensis infection, *Arch Intern Med 154:* 1410 (1994).

5- Young EJ: Brucella species, "Mandell GL, Bennett JE, Dolin R (eds): *Principles and Practice of Infectious Diseases"* kitabında, s. 2053, Churchill Livingstone, New York (1995).

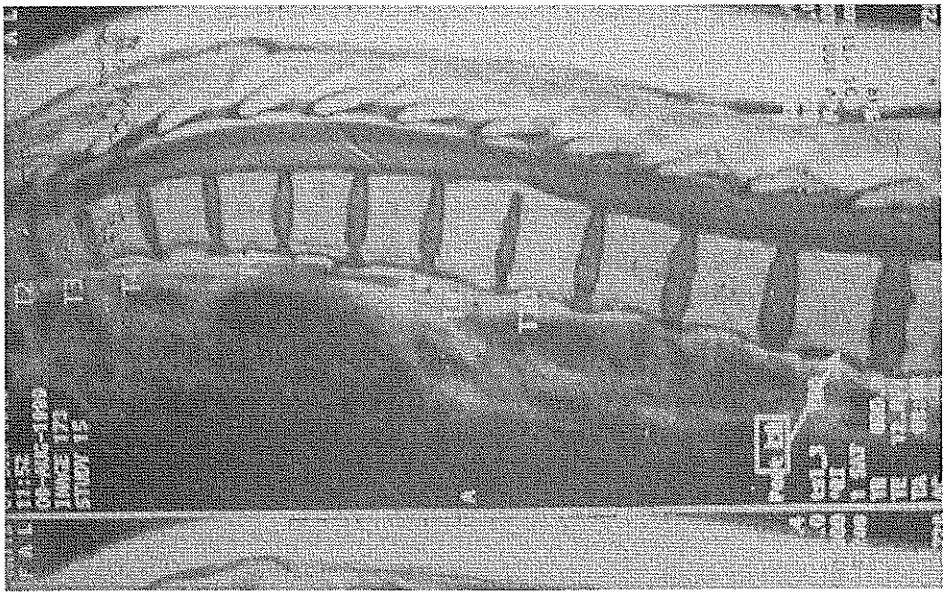

Figure 1.MRI is showing a thoracal epidural abscess hypointense on T 10 weighted.

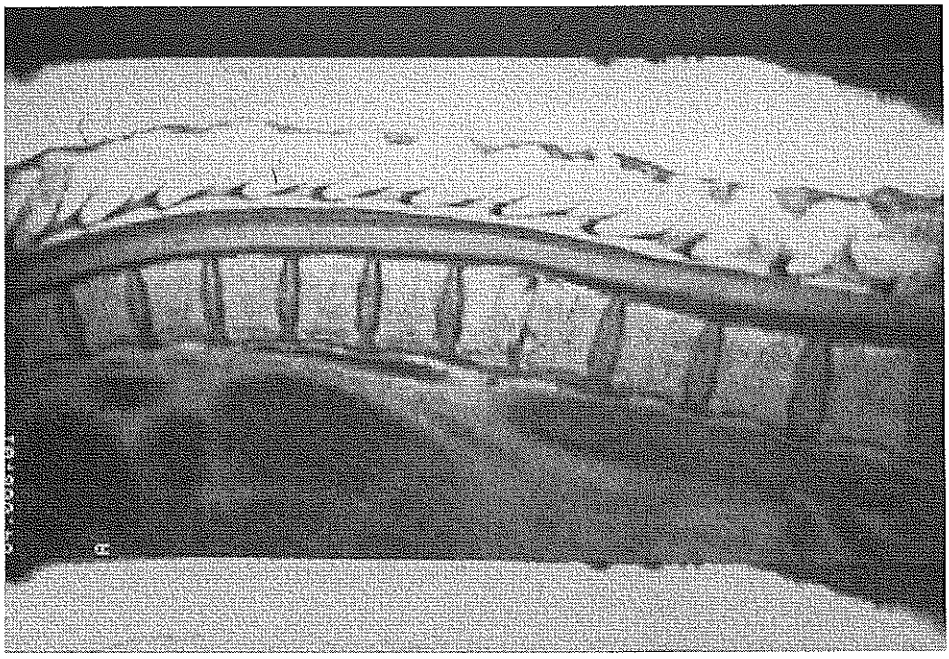

Figure 2. MRI is showing vertebral body defect in the surface of the disk space after three months of treatment epidural abscess and recovery of the abscess.