A VENTRICULOPERITONEAL SHUNT INFECTION AND SUBCUTANEOUS ABSCESS DUE TO BRUCELLA ABORTUS

SUMMARY
Infrequent involvement sites of brucellosis may cause a wide range of nonspecific symptoms. In this paper, a 60-year-old female case with nervous system, gastrointestinal tract and soft tissue involvement of brucellosis is presented. It is one of the rare cases in literature with ventriculoperitoneal shunt infection and the first case with subcutaneous abscess in the incision site due to brucellosis. Also it shows that brucellosis should be considered in the differential diagnosis for acute abdomen in endemic regions.

INTRODUCTION
Brucellosis is an endemic zoonosis in Turkey (1, 2). It is a systemic infection in which any organ or system of the body can be involved (2). The clinical diagnosis of the disease may be difficult because of varying presentations.

In this paper, a 60-year-old female farmer who had a ventriculoperitoneal (VP) shunt infection and subcutaneous abscess due to Brucella abortus is presented.

CASE
A 60-year-old woman was hospitalized with the diagnosis of subarachnoidal hemorrhage. On the seventh day of hospitalization, abdominal distention and tenderness developed so explorative laparotomy was planned. During the laparotomy an appendectomy and bridectomy was performed. Subsequently on the 22nd day of hospitalization she underwent an operation to correct the aneurysm. Three months after this operation hydrocephalus was diagnosed and a VP shunt was inserted. One year later the patient was re-admitted to the hospital having abdominal pain, nausea, abdominal tenderness and constipation. Bridectomy was performed during an emergency explorative laparotomy. On the tenth day after this operation, alteration of consciousness, suspected neck stiffness, nausea, vomiting, high fever and purulent drainage from the abdominal incision site developed. On physical examination, abdominal tenderness and muscular resistance were found. A
subcutaneous abscess was drained by laparotomy. A short Gram-negative rod was isolated by culture from this abscess, blood and the cerebrospinal fluid (CSF) taken from the end of VP shunt during the operation. The organism was catalase-, oxidase- and urease-positive and agglutinated with B. abortus antiserum (Difco Laboratories, USA). Standard tube agglutination test for Brucella sp. (STA) was positive at 1:320 dilution in serum. Cerebrospinal fluid (CSF) analysis taken by lumbar puncture revealed 100 cells/mm³, predominantly lymphocytic in character, protein 30 mg/dl (blood glucose level: 143 mg/dl), but culture and STA were negative. Triple-therapy consisting of trimethoprim/sulfamethoxazole, doxycycline and rifampin was initiated for the subcutaneous abscess and VP shunt infection due to B. abortus. During the third week of the therapy, B. abortus was also isolated from the CSF taken from the shunt reservoir. The patient was discharged because of her desire, and the authors were then informed that she had died three weeks later.

**DISCUSSION**

Nervous system complications of brucellosis include meningitis, encephalitis, myelitis-radiculostructural, brain abscess, epidural abscess, demyelinating syndromes and meningo-vascular syndromes (2, 3). VP shunt infections due to brucellosis have been rarely reported in the literature. Bouza et al. (4) reported a case of neurobrucellosis in which a 17-year-old woman with hydrocephalus had VP shunt inserted. Anderson and Mortensen (5) reported a case of a Turkish woman who had hydrocephalus and on insertion of a VP shunt developed B. melitensis peritonitis due to undiagnosed neurobrucellosis. Locutura et al. (6) reported a case of an urban-dwelling Spanish patient who, following implantation of a VP shunt, developed ascites caused by B. melitensis without concomitant meningeal involvement.

**REFERENCES**