on the right hip and nausea. Physical examination revealed that her temperature was 37.7 °C. The brucella agglutina-
tion test was positive at a titer of 1/640. Blood cultures were sterile. It was thought to be a relapse of brucellosis and was treated with streptomycin for three weeks and for eight weeks with rifampin and doxycycline. Following this oral therapy, she had physiotherapy and recovered completely.

Case C. Her 52-year-old husband presented with com-
plaints of high fever, rigors, sweating and pain in the lumbar region for seven days. He had a temperature of 36.5 °C. The brucella agglutination titer was 1/320. Blood cultures were sterile. He was treated for six weeks with doxycycline and rifampin.

Case D. Her 24-year-old son came to hospital with a ten-day history of fever, rigors and sweating. He had a temperature of 37.5 °C. The brucella agglutination titer was 1/640; blood culture was sterile. He was treated for six weeks with doxycycline and rifampin.

At review, twelve months after treatment, all patients remained well.

Brucellosis in members of the same family has been reported previously. As brucellosis was determined in all the family members within a one-month period, a common source was investigated. The family did not work with animals and they were not used to eating cheese made from raw milk. Three kinds of cheese that the family had ingested were cultured but the results were negative for Brucella spp. Although sexual transmission is possible between parents of this family, as all the members were infected, a common source of food was thought to be the cause.

Conflict of interest: No conflict of interest to declare.

References


An unusual presentation of acute brucellosis with fever, jaundice and maculopapular rash

The clinical features of brucellosis are diverse. An uncommon case of brucellosis with the triple conditions of fever, jaundice and maculopapular rash is described.

A 35-year-old male farmer was admitted to our clinic because of a seven-day history of fever, jaundice, generalized myalgia, fatigue, vomiting, anorexia, sweating and a maculopapular rash that had appeared one day before admission. The rash covered the trunk, arms and legs. Physical examination revealed fever of 39 °C, tachycardia of 110/min, and blood pressure of 110/90 mmHg. He had jaundice, rash and hepatosplenomegaly. Laboratory findings were: white cell count: 6.2 x 10⁹/L, hematocrit: 37%, platelet count: 45 x 10⁹/L, erythrocyte sedimentation rate: 8 mm/h, and C-reactive protein: 7.4 mg/dL (0–0.5 mg/dL). Biochemical parameters were BUN: 27 mg/dL (5–23 mg/dL), creatinine: 1.7 mg/dL (0.8–1.4 mg/dL), total bilirubin: 5.9 mg/dL (0.25–1.2 mg/dL), direct bilirubin: 2.8 mg/dL (0–0.2 mg/dL), alkaline phosphatase: 502 U/L (64–300 U/L), AST: 486 U/L (10–37 U/L), ALT: 363 U/L (10–37 U/L), and LDH: 3320 U/L (220–450 U/L).

Urinalysis revealed a positive result for both protein and bilirubin. Diffuse enlargement of the spleen and liver were detected on abdominal ultrasound examination. A chest X-ray was normal. Antinuclear antibodies, anti-DNA, tuber-
culin skin test, parasitic examinations, and serologic tests for syphilis, salmonellosis, leptospirosis, rickettsiae, myco-
plasma, toxoplasm, cytomegalovirus, Epstein–Barr virus, herpes simplex virus, human immunodeficiency virus and hepatitis B and C viruses were negative. A skin biopsy was not performed. On admission, a Wright agglutination test was negative, but after four days, seroconversion at a titer of 1/320 occurred. One week after hospitalization, blood and bone marrow cultures for Brucella species were positive by the BACTEC technique. Doxycycline (200 mg/day) and streptomycin (1 g/day) were started. The rash disappeared within four days of therapy commencement, and fever resolved on the sixth day of therapy. Antibiotic therapy continued for six weeks (doxycycline for six weeks and streptomycin for three weeks). At the 24-week follow up, the patient had made a full clinical and biochemical recovery.

Brucellosis is a multi-system disease with a broad spec-
trum of non-specific symptoms that generally occur within two weeks (but sometimes up to three months) after infec-
tion. Because the clinical illness is nonspecific, a complete
history, including a detailed dietary history, is crucial. The most common route of transmission is ingestion of raw milk products from diseased animals.

The patient was a shepherd and reported consuming cheese made from raw milk. He had many acute signs and symptoms of human brucellosis, i.e., fever, myalgia, anorexia, fatigue, sweats and lumbar pain, and other clinical manifestations such as splenomegaly and hepatomegaly, and also rare manifestations such as rash and jaundice.

Cutaneous lesions occur in about 5–15% of patients with brucellosis. A variety of rarely-reported skin lesions has been described in brucellosis, including maculopapular lesions, papules, petechiae, purpura, impetiginous and psoriasis-like lesions. The cutaneous findings observed in brucellosis are due to direct inoculation, hypersensitivity phenomena, deposition of immune complexes, and direct invasion by the organism reaching the skin hematogenously. Berger et al. have separated the cutaneous lesions in brucellosis into those of exogenous and endogenous character. Those of exogenous character include brucellar dermatitis and primary inoculation abscesses. Ariza et al. divided endogenous cutaneous lesions into four different groups: disseminated papulonodular eruption, erythema nodosum-like, extensive purpura, and diffuse maculopapular eruption. Diffuse maculopapular eruption was reported in three patients in the study of Ariza et al. and in one patient in the study of Ural and Fındik.

Splenomegaly or hepatomegaly is found in 20 to 30% of cases. Liver and spleen enlargement with mild nonspecific elevation of liver enzyme values can be detected in approximately 50% of patients with brucellosis. The spectrum of pathologic findings in brucellar hepatitis is varied. Infection with Brucella abortus is characterized by granulomas. By contrast, infection with Brucella melitensis produces lesions ranging from small aggregates of mononuclear cells surrounding foci of necrosis scattered throughout the parenchyma to a diffuse nonspecific inflammation.

Skin involvement is uncommon in human brucellosis. While hepatitis is common, it is usually subclinical and jaundice is rare. This is an unusual case of brucellosis where a patient showed triple symptoms of fever, jaundice and maculopapular rash, and is reported here to remind physicians of the rare complications of brucellosis; the disease is capable of developing unexpected complications in unusual organs.

Conflict of interest: No conflict of interest to declare.

References


A fatal case of measles pneumonia complicating an adult recipient of hemopoietic stem cell transplantation during the nationwide epidemic in Korea

In 2000–2001, a measles (rubeola) epidemic occurred in Korea, with more than 55 000 reported cases. During the outbreak, a total of 16 transplant recipients in our hemopoietic stem cell transplantation (HSCT) center were presumptively diagnosed with measles. There have been several reports published on patients who have developed severe complications after contracting measles, most of which refer to children with either a malignancy or HIV infection. However, measles complications in adults who have received HSCT have rarely been reported.

A 39-year-old woman was hospitalized for complaints of diffuse abdominal pain and diarrhea of 3 days’ duration. The patient had previously been diagnosed to be in the chronic phase of chronic myelogenous leukemia, and had received an HLA-matched sibling allogeneic HSCT with busulphan and cyclophosphamide 15 months prior to this hospitalization. She was on combined immunosuppressive therapy with cyclosporin, prednisolone, and mycophenolate mofetil for extensive chronic graft-versus-host disease (GVHD). There was no history of a post-HSCT vaccination and no known recent exposure to measles.

On day 2 of hospitalization she developed a fever, a cough, and conjunctivitis, which were followed by a maculopapular eruption. Diffuse maculopapular rash.