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Intrauterine Fetal Death Complicated by Maternal *Listeria Monocytogenes* Infection

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Listeria monocytogenes (L. moncytogens) is a common organism in nature and can be easily isolated from soil, water, processed foods, raw meat. *Listeria* has intracellular life cycle, so is able to cross the placental barrier. Listeriosis is a rare disease that induces maternal symptoms, but lead to severe effect on fetus. Early diagnosis and management is most important to mother and fetus.

Key words: *Listeriosis*, Intrauterine fetal death, Pregnancy

CASE REPORT

A 36-year-old, parity 3-0-0-3 was referred to a hospital due to vaginal bleeding and high fever. Local private clinic supposed as acute pyelonephritis and took care for 3 days, but high fever lasted. Before Local clinic admission, she had cold milk and did chilling sense and cough. She was transferred to our hospital. Her vital signs were blood pressure 100/70 mmHg, pulse rate 90 /min, hemoglobin 10.4 g/dL, C-reactive protein (CRP) 16 mg/dL, erythrocyte sedimentation rate (ESR) 30 mm/hr, and platelet 119,000 /uL, monocyte (%) 10.1%. Peripheral blood morphology showed normochromic normocytic red cells and mild poikilocytosis with burr cells. Vaginal rupture of membranes (ROM) test was positive. She was diagnosed that intrauterine pregnancy at 14 weeks and 4 days, intrauterine fetal death, preterm premature rupture of membrane (PPROM) and chorioamnionitis. Third-generation cephalosporin was administered by intravenous infusion every 8 hours. But, body temperature has been checked continued ranging between 38-39.5℃ for 5 days. After 5 days, diagnosis of *Listeria* infection was confirmed by culturing from maternal blood (Fig. 1) and monocyte, ESR, CRP level was normal. Terminated fetus was male and 100 g weighted. There was not specific finding under an operation and it was shown normal in fetus. Pathological findings of placenta showed acute necrotizing chronioamnionitis and acute funisitis. But, we could not detect *L. Monocytogeneses* in amniotic fluid and placenta.

DISCUSSION

Listeriosis is rare infection, but is more common 20 times in pregnancy than in general population.[1] In 2000, *L. Monocytogenes* were reported in a total of 7.4 per million pregnant women.[2] In Denmark, from 1994 to 2005, thirty-seven were recorded in pregnant women.[3] In Korea, 12 pregnant women with *L. Monocytogenes* infection have been reported since 1982, but there was no case about intrauterine fetal death. Maternal bacteremia can lead to spontaneous abortion, preterm labor, and still birth. The most frequent symptom is high body temperature. The average duration of diagnosis was reported 9 days.[4]

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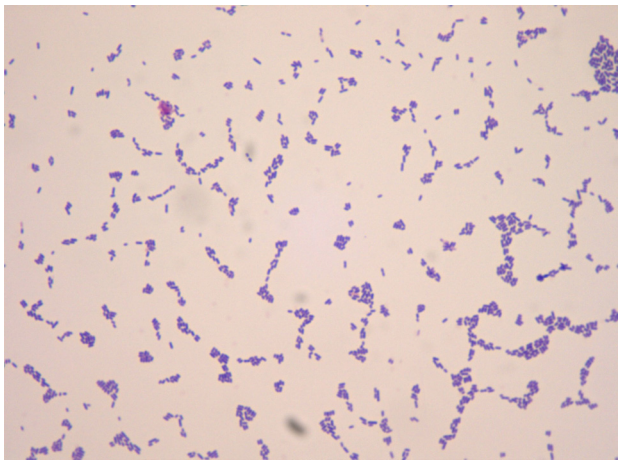

Fig. 1. Gram stain shows *Listeria monocytogeneses* (×1,000).

We suggest 4 tips about *Listeria* infection diagnosis and prevention. 1) Any pregnant woman present with fever and flu-like illness. We need to consider *Listeria* infection. 2) Diagnosis of *Listeria* infection can only be made by culturing the organism from blood, amniotic fluid and spinal cord, not vagina and other sites. 3) Penicillin and Ampicillin have been used in the treatment.[1] 4) *Listeria* infection is more common in western area than in Asia. It is suggested that food culture is different between western countries and Asian. But nowadays Korean food habit has changed. We need guideline of food style for pregnant women. 5) In 1992, Centers for Disease Control recommended that pregnant women avoid raw milk, foods made from raw milk and should reheat ready-to-eat foods. Listeriosis in pregnancy is difficult to diagnose, because Listeria infection is very rare. But, the prognosis is relatively good if they are promptly treated.

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「국문초록」

리스테리아균은 자연의 보통의 유기체이고, 토양, 물, 가공되었던 음식, 날고기로부터 쉽게 분리될 수 있다. 리스테리아균은 세포 안에서의 주기와 생을 가지고 있고, 태반을 통과할 수 있다. 리스테리아균에 의한 질병은 드문 질환이고, 만일 감염된다면 태아에게 미칠 영향이 큰 질환이나 어머니에게는 증상이 거의 나타나지 않으므로, 주의를 요한다. 감염이 되었다면, 빠른 진단 그리고 관리가 산모와 태아에 있어서 가장 중요하다.

중심 단어: 리스테리아 감염, 자궁내 태아사망, 임신