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Review Article

**PREGNANT WOMEN AND TUBERCULOSIS
-A REVIEW**Fateme Parooei ¹, Mahmood Anbari ², Morteza salarzaei ^{1*}1 Student of Medicine, Students Research Committee, Zabol University of Medical Sciences,
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Abstract:**Introduction:**

Despite the advancement of science and the efforts of various global organizations, tuberculosis remains one of the deadliest diseases in the world; any people are suffering from the disease and, due to lack of facilities, may lose their lives. It is estimated that 19-43% of the world's population is infected with *Mycobacterium tuberculosis*, the bacillus discovered by the German physician, Robert Koch, on March 34, 1882, and his name survived forever.

Methods: In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the studies Pregnant women and tuberculosis. In this review, the papers published until early January 2017 that were conducted to study the Pregnant women and tuberculosis were selected. In searching for the articles, those English papers were selected that had Pregnant women and tuberculosis.

Results: Pregnant women are more susceptible to immunological changes in the immune system, in comparison with other people who are infected with tuberculosis. The most recent changes in immunity are in the later months of pregnancy, caused by increase in the level of progesterone. The production of antibodies and complement proteins of the immune system decrease significantly due to pregnancy hormones and this, in turn, makes pregnant women more susceptible to infections in general and tuberculosis, in particular.

Conclusion: After intracellular bacterial proliferation and spreading to the blood, tuberculosis infection is usually transmitted through the placenta into the baby's body in pregnant women. Blood transfusion by pair causes infectious tuberculosis in the liver and spleen of the baby. Occasionally, the bacteria may find its way into the middle of the ears through amniotic fluid and cause infections in the middle ear.

Keywords: Pregnant, women, tuberculosis

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INTRODUCTION

Despite the advancement of science and the efforts of various global organizations, tuberculosis remains one of the deadliest diseases in the world; any people are suffering from the disease and, due to lack of facilities, may lose their lives (1). It is estimated that 19-43% of the world's population is infected with *Mycobacterium tuberculosis*, the bacillus discovered by the German physician, Robert Koch, on March 34, 1882, and his name survived forever (2). Early diagnosis of pulmonary tuberculosis plays an important role in reducing morbidity and mortality. This disease has an epidemic control in society (3). Cell is transmitted by breathing droplets from person to person. Although some people develop active tuberculosis after infestation with tuberculosis, most of these remain unchecked and remain hidden or silent (4). Tuberculosis, which is inactive or inaccessible, becomes an active disease in 5-15% of cases, which is more common in people with more immune deficiency (5). In most parts of the world, due to the lack of sufficient resources and facilities, only the main priority of this strategy, diagnosis and treatment of these active TB patients, is focused and the hidden TB is neither diagnosed nor treated.

METHODOLOGY:

In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the studies pregnant women and tuberculosis. In this review, the papers published until early January 2017 that were conducted to study the Pregnant women and tuberculosis were selected. In searching for the articles, those English papers were selected that had Pregnant women and tuberculosis.

FINDINGS:

Since women suffer from tuberculosis in developing countries, about 700,000 deaths are reported annually, making tuberculosis one of the most important causes of maternal mortality (6). Pregnant women are more susceptible to immunological changes in the immune system, in comparison with other people who are infected with tuberculosis. The most recent changes in immunity are in the later months of pregnancy, caused by increase in the level of progesterone (7). The production of antibodies and complement proteins of the immune system decrease significantly due to pregnancy hormones and this, in turn, makes pregnant women more susceptible to infections in general and tuberculosis, in particular. Additionally, given the impact of HIV virus on immune system, the risk of the incidence of this disease increases by 20 to 37% (8). Africa, Southern Asia, and Australia have been introduced as the most high-risk areas for the incidence of TB

among pregnant women. According to a report released in these areas, the most frequent transmission of infection was among young people, especially in women who have a nursing infant and who have AIDS in addition to tuberculosis (9). The prevalence of tuberculosis in pregnant women was reported to be between 19 and 39 per 100,000 in initial studies; but, secondary studies reported this rate to be 4 cases per 100,000, indicating a significant decrease. According to the latest study, the incidence rate in pregnant women has risen again (10).

DISCUSSION AND CONCLUSION:

After intracellular bacterial proliferation and spreading to the blood, tuberculosis infection is usually transmitted through the placenta into the baby's body in pregnant women. Blood transfusion by pair causes infectious tuberculosis in the liver and spleen of the baby (11). Occasionally, the bacteria may find its way into the middle ear through amniotic fluid and cause infections in the middle ear (12). The inflammation of the TB in infants is non-specific and may be a sign of other infections; signs may be seen at birth, but they usually appear after 2 or 3 weeks after birth (13). These symptoms include the size of the liver or spleen, respiratory distress, fever, and lymphadenopathy. These infants may have no history of TB infection in mothers, so that in more than 50% of cases, mothers' infection is detected after the diagnosis of infections (14). Therefore, as soon as the infants are suspected of having a neonatal tumor, the mothers should immediately be investigated. The diagnosis of tuberculosis is different in newborns and adults. Skin tuberculin testing in neonates is negative at birth and remains negative in 1 to 3 months (15). Chest X-ray findings in newborns are commonly classified as regional adenopathy, cavities in the tissue, and Parenchymal infiltration. The spread of microscopy and culture of stomach, chip, inner ear, spinal cord, and bone marrow, if positive, can be useful in diagnosis (16). These results, along with the symptoms of TB and Chest X-ray findings, can make a diagnosis. It must always be kept in mind that if the symptoms of the disease are positive, along with chest radiography, cerebrospinal fluid should be checked. After a definitive diagnosis, treatment should be initiated to prevent the progression of the disease.

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