



# Breast Tuberculosis in Pregnancy (A Review and Report)

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## Abstract

**Introduction:** Although tuberculosis is very common in endemic areas, breast tuberculosis is one of the rarest types of extrapulmonary tuberculosis. Since, as compared to other organs, breast tissue is not a suitable place for the survival and division of *Mycobacterium tuberculosis*, breast tuberculosis consists about 4 to 25% of tuberculosis.

**Methods:** In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the studies Breast Tuberculosis in pregnancy. In this review, the papers published until early January 2017 that were conducted to study the Breast Tuberculosis in pregnancy were selected.

**Presenting the patient:** The patient is a 48-year-old married housewife woman who visited hospital two months ago and complained of chest pain, redness of chest, left breast swelling. The patient underwent surgery; the tissue was removed and sampling was performed. In a biopsy, neutrophil cell accumulation was evident with the formation of multiple granulomas. The patient was diagnosed with a 6-month regimen and complete recovery was achieved.

**Conclusion:** The clinical and radiological findings of breast tuberculosis are highly misleading and it is difficult to differentiate breast tuberculosis with breast cancer. The clinical presentation of breast tuberculosis is somewhat varied and systemic tuberculosis symptoms are not always seen. The problem with these diseases is the primary immune deficiency and the weakness of cellular immunity should be addressed in these patients.

**Keywords:** Breast, Tuberculosis, pregnancy

## INTRODUCTION

Although tuberculosis is very common in endemic areas, breast tuberculosis is one of the rarest types of extrapulmonary tuberculosis (1). Since, as compared to other organs, breast tissue is not a suitable place for the survival and division of *Mycobacterium tuberculosis*, breast tuberculosis consists about 4 to 25% of tuberculosis (2). Breast tuberculosis was first discovered by Cooper in 1829 as the rarest form of extrapulmonary tuberculosis. Due to rare incidence and chance of confusion with breast cancer, breast tuberculosis has recently come into the center of attention (3). Breast tuberculosis is often misdiagnosed and the patients undergo invasive treatment prior to diagnosis. Radiology findings are different in regard with breast tuberculosis (4). In ultrasound, a hypoacogens mass may be observed and there is a lesion in the mucosal calcification, but none of these measures distinguish between malignant lesions and breast tuberculosis (5). In order to provide precise differential diagnosis, all cases of purulent discharge from the breast should be examined and a pathological study of both malignant cells and necrosis is required (6). Approximately 75% of cases of breast tuberculosis are diagnosed by pathology and only 25% of cases are positive for *Mycobacterium tuberculosis* (7). Breast tuberculosis therapy is performed in conjunction with surgery and anti-cluster treatment. If there is a small lesion, it can be removed and if the lesion is widespread, a simple mastectomy that is followed by anti-TB drug therapy for six months is recommended. All patients should undergo anti-TB treatment for a period of 9 months (8). In addition, the ablation and total removal of the mass and Abstraction drainage will also be done according to the

patient's condition. In young women of childbearing age with any palpable mass, the possibility of breast tuberculosis should be considered. However, tuberculosis might be the main cause of breast mass in old ages (9).

## METHODS

In this review article, the databases Medline, Cochrane, Science Direct, and Google Scholar were thoroughly searched to identify the studies. Breast Tuberculosis in pregnancy. In this review, the papers published until early January 2017 that was conducted to study the Breast Tuberculosis in pregnancy were selected.

## PRESENTING THE PATIENT

The patient is a 48-year-old married housewife woman who visited hospital two months ago and complained of chest pain, redness of chest, left breast swelling. The patient had initially referred to general practitioner at early stages. After a while, she noticed a drain out of the swollen area and she decided to visit the doctor again. She had fever and complained of perspiration. The lungs were normal and had no lymphadenopathy; the breast was red and swollen and secreted infection at the time of medical examination. Radiography of the lung turned out to be normal in paraclinical experiments. The patient underwent surgery; the tissue was removed and sampling was performed. In a biopsy, neutrophil cell accumulation was evident with the formation of multiple granulomas. The patient was diagnosed with a 6-month regimen and complete recovery was achieved.

### DISCUSSION AND CONCLUSION

Breast tuberculosis is a rare tuberculosis event in the whole world. The clinical and radiological findings of breast tuberculosis are highly misleading and it is difficult to differentiate breast tuberculosis with breast cancer (10). Although the incidence of breast tuberculosis is more common among females, some reports have proven the incidence of this disease among male (11). Breast tuberculosis may be primordial, in which case a specific focus will not be found elsewhere in the body, and although the primary lesion is found elsewhere in the body, secondary intestinal tract is involved (12). Primary breast tuberculosis infection can be created through skin scratches or ducts on the nipple. Direct expansion through adjacent infected tissues, such as the lower ribs, is one of the possible sources of infection (13). However, it is commonly believed that breast thinning is typically the secondary to a previous respiratory tract that is present elsewhere in the body. This can be due to pulmonary origin or a lymph node in the lymphatic parathyroid, intraperitoneal, or armpit. The clinical presentation of breast tuberculosis is somewhat varied and systemic tuberculosis symptoms are not always seen. The problem with these diseases is the primary immune deficiency and the weakness of cellular immunity should be addressed in these patients.

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