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Tuberculosis of Breast and Our Experience in Sixteen Cases

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Abstract: Tuberculosis of breast is not a rare disease in our country and possibility of this disease is usually ignored in every day practice. Though the influence of TB on the course of pregnancy and labour is not well understood but its effects on foetus and family life is well studied. On time detection and proper management is necessary to ensure better results. In a retrospective study of 200 tuberculosis cases that were managed by surgical experts of USTC, 16 cases were with tuberculosis of breast in different presentation for which a clinical classification is formulated. All cases were female of reproductive age group (28-40 yrs). Unilateral involvement was in all cases. Two cases were pregnant at the time of detection of the disease. Pyogenic abscess, fibroadenoma, duct ectesia, fibroadenosis, Ca breast etc. were considered as differential diagnosis. Detection of AFB in affected tissue and characteristic histological picture of it confirmed the diagnosis. Same-sided axillary lymph nodes involvement was noted in 2 cases and pulmonary tuberculosis was in 4 cases. In impregnate group 4 drugs combination consisting of Rifampicin, Isoniazid, Ethambutol and Pyrazinamide for two months and two drugs combination consisting of Rifampicin and Isoniazid for next 4 months was applied. In pregnant ladies Pyrazinamide was excluded from the regime. Pyridoxine was given in all patients. Pregnancy is allowed to continue in pregnant cases and it is discouraged in other patients in active stage of the disease. Results of treatment are considered good. Follow–up at 1 month, 2 months and 3 months interval up to 2 yrs. is done in 8 cases. In 2 cases surgical intervention like: wide wedge resection of affected tissue and lumpectomy was needed at 6 months and 8 months respectively because of persistence of big lumps with discharging sinuses. Odd-looking scars persist in six cases. It is concluded that medical treatment is curative in almost all cases. Surgical intervention is necessary in rare instances. Pregnant cases need especial care and management.

Key words: TB mastitis, sixteen cases

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Introduction

Tuberculosis mastitis is an uncommon form of extra pulmonary tuberculosis in our country. Most of the patients are female of reproductive age group. Possibility of the disease is usually ignored in surgical practice. The disease has got a definite influence on family life, foetus and babies. If the disease affects pregnant women a more careful drug list is essential because of toxicity and terratogenic affect of some drugs to the babies. A discussion enriched with an experience in sixteen such cases is presented herewith.

Materials

Information from different literature and a retrospective study of 200 tuberculosis cases in which 16 cases were with tuberculosis mastitis is taken in consideration. Surgical experts of USTC dealt these cases in the period from June 1999 to February 2005.This is taken as the material of this work.

Presentation of cases

Duration: 6months - 1year

Signs and symptoms of the cases is as follows:

* Low-grade fever and malaise was in all cases.
* Discharging sinuses and lump in 8 cases.
* Ill-defined localized lump in 4 cases.
* Ulcer with underlying lump 2 cases
* Diffuse hypertrophy with nodularity of affected breast in 2 cases.
* Same- sided axillary lymphadenitis in 2 cases.
* Associated pulmonary lesions in 4 cases.

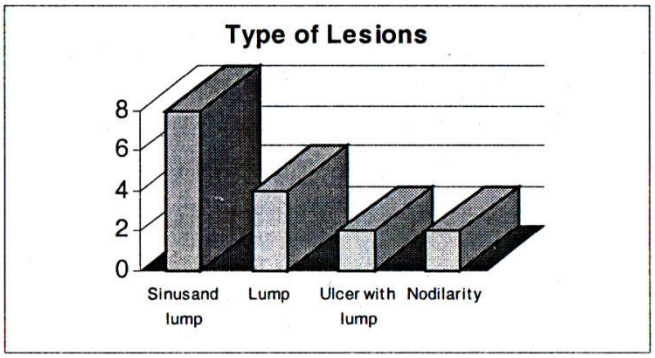


Figure1

History of immunization: None got BCG.

Family history: In 2 cases there are history of pulmonary tuberculosis in some family members.

Associated diseases: DM in one patient.

D/D: Pyogenic abscess, fibroadenoma, fibroadenitis, Ca breast, duct ectesia.

Investigations performed: Blood R/E, Urine R/E, X-ray chest, Mammography, Smear of discharge for AFB, FNAC from affected tissue and regional lymph nodes, tissue for Histopathology and AFB, Tuberculin test etc. Diagnosis is confirmed by detection of AFB in affected tissue and also on the basis of characteristic histological picture of the sample. (Figure 2a & 2b)

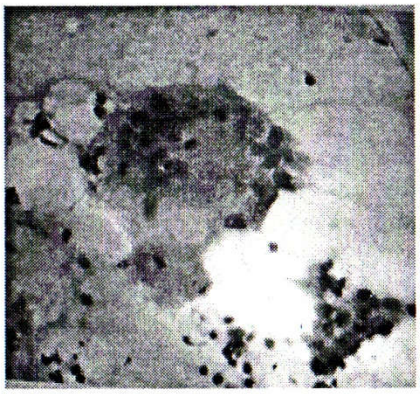


Figure 2(a)

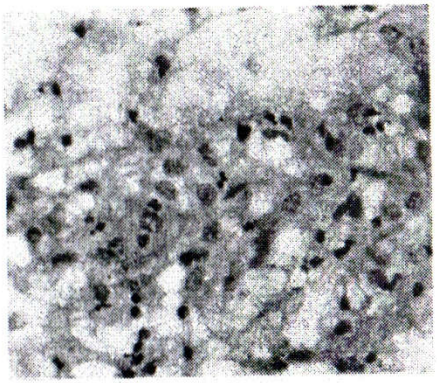


Figure 2(b)

Treatment applied: Medical treatment -

1. Rifampicin, Isoniazid, Ethambutol, Pyrazinamide 2 months
2. Rifampicin, Isoniazid 4 months

In pregnant cases Pyrazinamide was excluded from the regime. Pyridoxine was added to all cases. Additional surgical intervention was necessary in two cases at six and 8 months respectively because of nonresolution of the lump for a longer duration.

Results of Treatment

14 cases are cured and 2 cases are still taking drugs to which response is good. Two cases needed surgical interventions. Odd-looking scar was in 6 cases. (Figure 3)

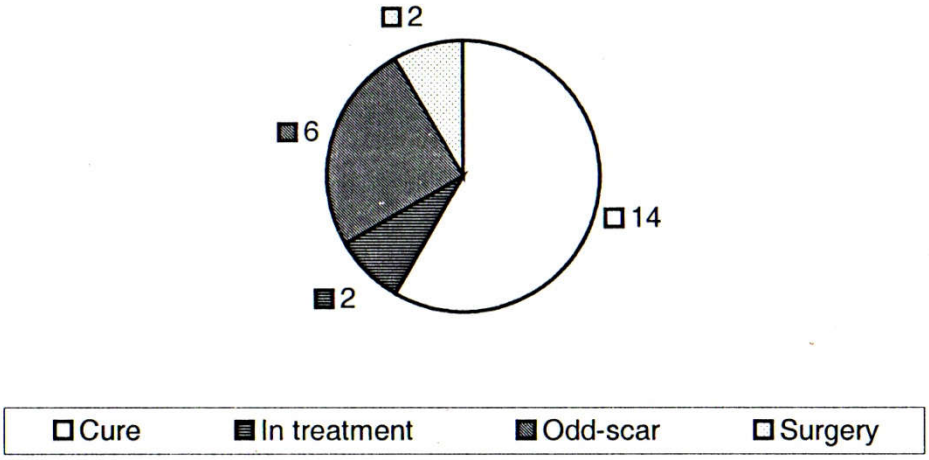


Figure 3

Discussion

Tuberculosis is a chronic infectious disease that may affect any organ including breast. The figure of its global incidence and mortality due to it looks gloomy. Ninety five percent of TB cases and 98% of TB death is in developing country. Robert Koch in 1882 said: ***"If the number of victims which a disease claims is the measure of its significance, then all the diseases, particularly the most dreaded infectious diseases, such as bubonic plaque, Asiatic Cholera etc. must rank far behind tuberculosis."***

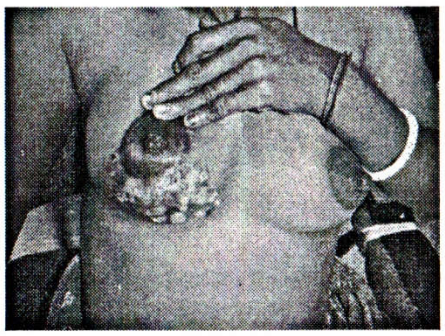
Though lung is the commonest site for tuberculosis but not infrequently breast is the presenting site. It is thought that breast tissue offers high resistance to the growth and multiplication of mycobacterium tuberculosis and that is why tuberculosis mastitis is not common. Route of entry of bacteria to the breast tissue may be primarily through skin abrasion or duct openings in the nipple. Secondary route may be through blood and lymphatic. Contagious spread from ribs and pleural space is also reported. Lymphatic spread from same-sided axillary lymph nodes is also common and spread from cervical and medistinal group may also occur. Histologically it is classified into 3 categories:

* Nodular type
* Disseminated type
* Sclerosing type

Nodular type is most common and is confused with fibroadenoma. Disseminated type is confused with fibroadenitis and sclerosing type is confused with Ca breast. On the basis of clinical picture of the involved breast we tried to classified the disease into the 4 following varieties: (Figure 4)

* Lumps and sinuses.
* Localized ill-defined lump.
* Diffuse hypertrophy and nodularity.
* Ulcers with underlying lump.

Cases with discharging sinuses are most common. As the disease is uncommon so its possibility in daily practice is ignored and sometimes it is only discovered after histopathological report of the excised lump. But it should be suspected in long-standing mildly tender nonmoveable lump, in cases of chronic discharging sinuses with lump, long standing ulcer with underlying lump etc. It occurs mostly in female of reproductive age though its occurrence in male is also reported. We have sixteen female cases (8%)



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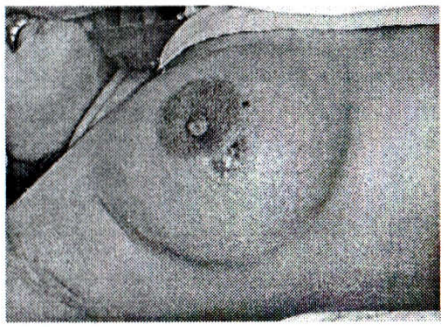

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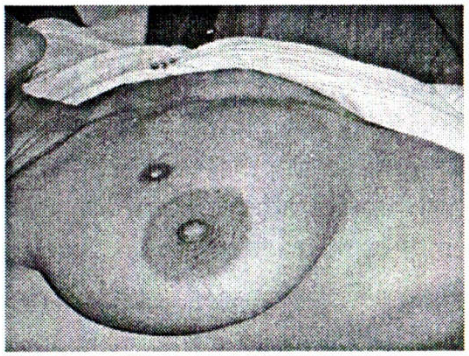

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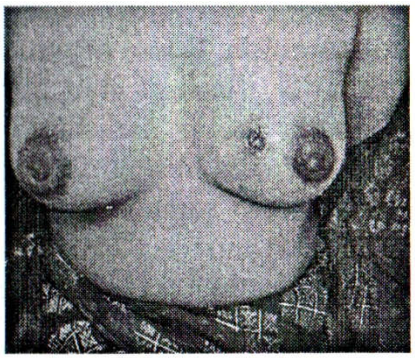

Type-3

Figure 4

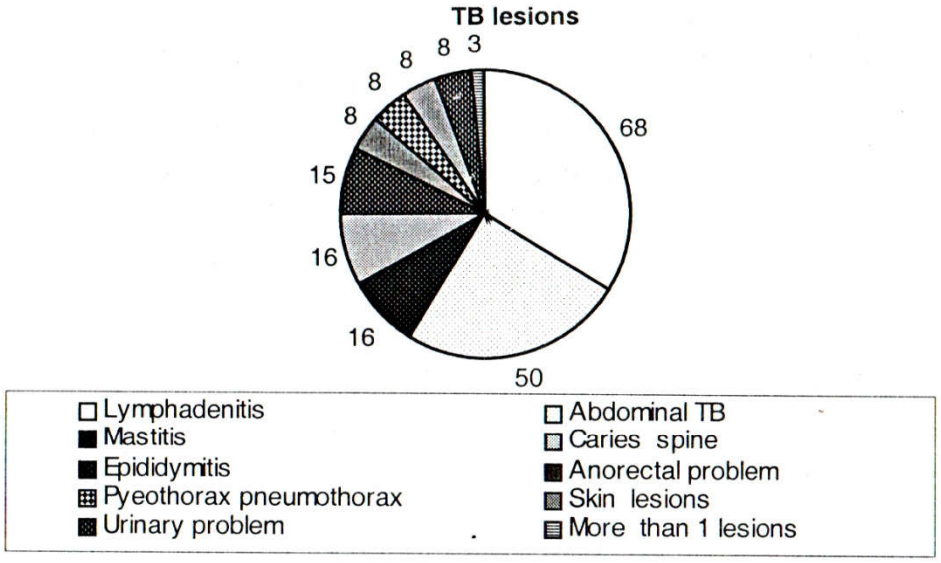

Figure 5: out of 200 cases of tuberculosis in USTC and also some private clinics of Chittagong

All the cases were first clinically suspected and subsequently confirmed by finding of AFB in suspected tissue and typical cytological and histopathological picture of affected tissue.

Medical treatment is needed in all cases and results are encouraging and surgical treatment like: lumpectomy, wedge resection, mastectomy etc. is rarely needed in cases to remove extensive necrotic tissue and where anti TB treatment fails. According to the statement of an author simple mastectomy is necessary either due to lack of response to chemotherapy (10%) or in large painful, ulcerative lesion involving the whole breast (4%). Axillary dissection for caeseated and ulcerated gland is required in only 8% of cases.

In our experience surgical interventions like: wide wedge resection and excision of the lump was necessary in two cases because of failure of resolution of the lumps after proper chemotherapy.

Mycobacterium tuberculosis can cross placental barrier and some drugs have terratogenic effects. So special attention should be given to pregnant cases. The terratogenic effect of Pyrazinamide is not well studied and Streptomycin is ototoxic .So these drugs must be excluded from the drug list in pregnant cases. Congenital TB may occur. So babies should be examined to detect such as early as possible. We have two cases in which breast TB is diagnosed at 3 and

4 months of pregnancy. They are in our keen follow-up. Breast-feeding to babies is discouraged in the active stage of the disease. It is reported that pregnancy neither predisposes to the disease nor the disease effects the normal progression and termination of labour but Selikoff and Dorman reported 7 spontaneous abortion and 9 ante-partum and intrapartum faetal death. So we think that this subject should be studied more.

Conclusion

Tuberculosis of breast is an important and interesting subject for the surgeons working in this area where tuberculosis is so common. The disease should be suspected in cases with special clinical picture of breast and surgeon should proceed accordingly. Special attention should be given to pregnant cases and their babies subsequently. On time detection and proper medical treatment not only ensure good results but also excludes the possibility of surgical intervention and minimize terratogenic effect of drugs.

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