LOW INVASIVE TREATMENT OF BREAST ABSCESS IN LACTATING WOMEN

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The aim of the study was to present our own results of low-invasive treatment of breast abscess in lactating women.

Material and methods. 72 lactating women with severe mastitis were treated. In 22 cases abscess formations were observed, accompanied by local pain, tenderness, breast asymmetry and skin reddening. Ultrasonographic examinations confirmed the presence of typical image of an abscess, from 3.3 to 8.2 cm in diameter.

The proposed procedure consisted in abscess aspiration biopsy guided by ultrasonography. A soft 1.5mm latex catheter was inserted into the abscess, and antiseptic lavage was made to evacuate pus. Medical control was performed on the second, fourth and seventh days after the procedure. The drain was usually removed after four or seven days.

Results. In 21 cases the abscesses were healed without complications. During the treatment women fed their babies with the breast under treatment. No milk retention was noted, and there were no problems with breast-feeding.

All the women highly appreciated aesthetic effect of the treatment - three months later no visible scars or breast deformations were noted.

This treatment failed in one case, then we had to perform more aggressive surgical treatment: an incision and drainage performed under general anesthesia with pharmacological suppression of lactation.

Conclusions. 1. Low invasive treatment of breast abscess in lactating women can lead to successful treatment without drug-induced blockade of lactation. 2. The results of treatment and visual effects are very good. 3. This method are comfortable for the patients, the suckling babies (there no significant problems during twelve days cure), and can reduce the cost of treatment.

Key words: breast abscess, low-invasive treatment, lactating women

Mastitis in lactating woman is observed in 1.5 to 9% of cases. In spite of correct treatment of such pathologies, some cases are complicated by abscess formation (8-66%). Hence, breast abscesses are one of most common diseases in this group, and they require surgical treatment (1, 2).

Typical surgical procedure consists in incision and drainage with drug-induced blockade of lactation (3). Unfortunately, such treatment could provoke postoperative complications, unsightly scar formation and lead to a negative effect for the suckling, resulting from the giving-up of breast-feeding (4).

The aim of the study: presentation of our own results of low-invasive treatment of breast abscess in lactating women.

MATERIAL AND METHODS

72 lactating women with severe mastitis were treated in the Outpatient Clinic of St
Sophia Hospital and in the Clinic of General Surgery, from June 2005 to June 2008. In 22 cases abscess formations were observed, accompanied by local pain, tenderness, breast asymmetry and skin reddening. Ultrasonographic examinations were performed to verify the diagnosis: they confirmed the presence of hypodense capsulated fluid collections (from 3.3 to 8.2 cm in diameter), a typical image of an abscess. All these patients were referred to Outpatient Surgical Clinic.

The proposed procedure consisted in abscess aspiration biopsy guided by ultrasonography (fig. 1 and 3). Using the 1.2 mm needle as a leader, a small (1-2 mm long) incision was made (fig. 2). The abscess was controlled by steel catheter, to break-up possible partitions. A soft 1.5 mm latex catheter was inserted into the abscess, and antiseptic lavage was made to evacuate puss (fig. 4 and 5). The wound was dressed. Antibiotic was administered orally for 5 to 7 days, the drug of choice being first generation of Cephalosporines, due to their pharmacodynamics.
The patients were told to perform a syringe lavage of the abscess cavity through the inserted drain, with 0.9% natrium chloride, twice a day. The point was to ensure correct emptying of the lactating breast by breast-feeding or by a mechanical device. Medical control was performed on the second, fourth and seventh days after the procedure. The drain was usually removed after four or seven days.

RESULTS

In 21 cases the abscesses were healed without complications. No pathological collections or signs of active inflammation were noted in the control USG examination performed after 7-10 days.

During the treatment 18 women fed their babies with the breast under treatment, and 3 women used a mechanical sucking device because of close incision localisation, feeding their babies from the healthy breast (5).

No milk retention was noted, and there were no problems with breast-feeding.

Their babies were doing very well, with no symptoms of general or alimentary infection (no diarrhoea, vomiting or fever).

All the women highly appreciated aesthetic effect of the treatment – three months later no visible scars or breast deformations were noted.

This treatment failed in one case, then we had to perform more aggressive treatment, because of poor emptying of the abscess and massive milk retention. The breast-feeding was suppressed by Bromocriptine mesylate. A wide incision and counter-lateral incision with 8mm latex drains insertion in the abscess cavity were performed under general anaesthesia. Surgical treatment was supplemented by i.v. antibiotic administration, replaced by oral form after 2 days. The woman was sent home in a good state after two and three days. Outpatient treatment continued for 12 days.

DISCUSSION

Breast abscesses can be serious problems during breast-feeding. They can occur in 50% of women with correctly treated mastitis, in spite of antibiotics application (6, 7). Radical surgical treatment of a mature breast abscess usually consists in incision and open drainage under short general anaesthesia. Postoperative treatment includes sequential antibiotic therapy and drug-induced blockade of lactation. This therapy is very effective, but may lead to various general and local complications and may involve negative side effects for both mother and baby: surgical drainage might result in adhesions in glandular tissue, breast deformity and unsightly scar formation (8). Modern total intravenous anaesthesia is usually safe, but in certain cases it can provoke some negative cardiopulmonary side effects.

Drug-induced blockade of lactation dramatically affects the hormonal status of breast-feeding women, resulting in nausea, vomiting and bad general feeling. All these symptoms lower the quality of life and may adversely affect mental state of the patients.

That is why new, low invasive techniques of treatment are being looked for, to eliminate negative elements of aggressive surgical treatment of a breast abscess (9). Needle aspiration of the abscess seems to be a better kind of treatment (10, 11, 12). This technique is popular in Western Europe (13). It is not invasive and enables to evacuate pus from the abscess cavity. Researchers applying this method claim that a single aspiration is not enough and several punctures are needed in many cases (14, 15). This may trigger local infective complications and cause physical and/or mental discomfort. Multi-focal abscesses, which are quite common, frequently require several aspirations. Our method combines the low-invasiveness of needle aspiration with the radicalism of surgical drainage, while eliminating possible negative side effects of either of these techniques. Visual effects of our methods are very impressive: all patients were very pleased with the look of the breast after treatment, which eliminates extensive scars and tissue deformations, common in surgical abscess incisions.

The greatest advantage of our modification is no need of drug-induced blockade of lactation: correct lactation was preserved in all cases but one patient had surgical treatment. Unvall-out emptying of header from content was indication to inhibiting of lactation in this case. Probably, the same reason was cause of failure described in literature, where abscesses were cured multiple needle aspirations but it carry continuation of treatment classically (16). The method described was applicable to treatment in not feeding patients. Results our
exams where qualified only feeding women, are comparable with published results-not feeding women (17). Drug-induced blockade of lactation is counter-indicated because of its negative impact on the immune system as well as physical and mental development of the suckling baby. During the treatment in the outpatient clinic, mother and child are not separated, what makes breast-feeding feasible and the baby remains in its mother’s care (18).

Moreover, regular natural milk emptying of the breast is an essential part of the treatment. Breast emptying with mechanical devices is recommended only when a sub-alveolar localisation of the abscess, or the drain or dressing placement render natural feeding impossible. In such cases mother can continue breast-feeding from the other breast, and the affected breast must be emptied mechanically. The milk from that breast may be given to the baby without pasteurisation if it does not contain pus or blood. Such a procedure is also safe for the baby because mother’s milk provides immunological protection by the oral supplying of specific antigens and immuno-competent cells acting against mother’s causative microbiologic agents. It reduces the risk of the infection being transmitted from mother to the baby. It is said that the risk of such infection is low. We have not observed any symptoms of alimentary infections in our group of the babies fed. Because of their pharmaco-kinetics, the antibiotics given to mothers practically do not affect the babies. It is generally believed that positive aspects of breast-feeding by far exceed risks linked with antibiotic intake with the milk. Most authors suggest that synthetic penicillin, or I/II generation’s cephalosporines are the drugs of choice because of their high concentration in the milk (19). The economic aspect of this method also merits attention: there is no need of hospitalisation, the treatment will be applied in an out-patient clinic and the patient’s sick leave is short or not needed.

There are other advantages of the said method: the lactative out-patient clinic provides close care of treated patients and USG monitoring is likely to detect any other abnormalities of the breast (20, 21, 22). The presence of such pathologies will be confirmed by needle-aspirative biopsy and/or histological verification (23, 24, 25). The incidence of breast cancer in lactating women is very low, but it should not be neglected (26). Yet, if it does happen, the cancer is usually confirmed in advanced stages. Strict control over the group of women treated by our regimen enables to detect any such pathology in very early stages (27).

This technique is highly beneficial, but it can be offered only to those women who are co-operative and fully aware of the advantages linked with breast-feeding. The patients must be informed about the need of closely following the rules of treatment, especially correct wound dressing and local lavage of the abscess cavity through the inserted drain. The avoiding of milk retention is essential for successful treatment, that is why the mothers must be told about the safety of this technique for themselves and for their babies. If mothers are not quite sure about safe breast-feeding from the affected breast, they can use a mechanical sucking device to empty the breast, and will return to natural feeding after the symptoms disappear.

**CONCLUSIONS**

1. Low invasive treatment of breast abscess in lactating women can lead to successful treatment without drug-induced blockade of lactation.
2. The results of treatment and visual effects are very good.
3. This method is comfortable for the patients, the suckling babies (there no significant problems during twelve days cure), and can reduce the cost of treatment

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