Efficacy and safety of ductal lavage for non-lactational idiopathic granulomatous mastitis: A retrospective case series study.

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Background/Objective: For non-lactational patients with pathologically diagnosis of idiopathic granulomatous mastitis (IGM), the current treatments include antibiotics and/or corticosteroids, surgery, or observation alone. In this retrospective case series study, we reported the efficacy and safety outcomes of the ductal lavage as the first-line treatment for IGM female Chinese patients.

Methods: We retrospectively reviewed our database and identified 201 IGM patients that had received ductal lavage as the first-line treatment.

The inclusion and exclusion criteria include:
1) 18-65 years old female patients;
2) Mastitis occurred at least 1 year after the cessation of the very recent lactation;
3) Received ductal lavage as first-line treatment;
4) Pathologically diagnosed as IGM;
5) Pregnant women, or women with breast carcinoma were excluded;
6) Patients with systemic lupus erythematosus (SLE), rheumatic disorders, or tuberculosis were excluded.

We reviewed the charts and information of these patients, and obtained the follow-up information by telephone and face-to-face visit at clinic. Complete response (CR) is defined as the disappearance of palpable mass and all related symptoms (redness, tenderness, etc.). Partial response (PR) was defined as significant relief of symptoms, but does not reach the CR criteria. Stable and progressive diseases (SD/PD) were defined as unchanged and progressive symptoms, respectively, indicating the ineffectiveness of the treatment.

Local anesthesia using 1% Lidocaine 2-3ml around the nipple. We used a blunted end probe to do the cannulation in 4-5 lactiferous ducts.

For the ductal lavage, we inserted the infusion cannula (21-23G) into 4-5 lactiferous ducts from the nipple under local anesthesia, and pump 10ml irrigation solution (2% Lidocaine 5ml, Triamcinolone acetonide 40mg, 0.9% saline 10ml and ceftriaxone 1.0g) into the ducts.

The patient returns to the clinic the next day with the irrigation solution staying in the lactiferous duct overnight, and receives breast massage. Repeat the infusion and massage procedure every other day, for 2 weeks.

Results: A total of 20 patients were identified as eligible. The median age was 34.5 (15-53) years old. The median (range) size of the mass by palpation was 6.25 (1.5-12) cm. There were 12 patients had a history of breast feeding and one of them had lactational mastitis during the breast feeding period. With a median follow-up of 5.7 months. There were 9 patients achieved CR. The median (range) months to CR was 1.8 (0.7-6.3) months. These patients did not receive any further treatments. There were 10 patients achieve PR. Among them, two received surgical treatment, and one received steroid treatments. The others did not receive any further treatment. There was one patient who had SD/DC, and received surgical treatment. The procedure of the ductal lavage is safe and painless, without any adverse events.

Conclusions: This retrospective study suggested the efficacy and safety of ductal lavage used as the first-line therapy for non-lactational IGM patients. A prospective, single arm study with more data collected was registered (NCT02794688) and initiated.