

## A Case Report on Galactocele

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### Abstract

*Objective:* The purpose of this report is to present the case of a 30 years old female patient with a confirmed diagnosis of Galactocele right breast. *Clinical features:* The patient presented with swelling/lump in upper quadrant associated with pain on palpation. Patient was also suffering with hypothyroidism from last two years. *Intervention and outcome:* Sonomammography and aspiration cytology were performed on the patient which confirmed the presence of galactocele of right breast. The patient then underwent the excision of galactocele. *Conclusion:* Galactocele is a milk cyst which occurs in females during lactation or after cessation of lactation. It feels like a smooth movable lump in the breast which causes discomfort. The aspiration can act as diagnostic as well as curative in this case. Sometimes excision may also be required.

**Keywords:** Galactocele; Cyst; Aspiration cytology; Lump; Excision.

### Introduction

Benign breast conditions are very common among the females. Some of them occur at the reproductive age while others occur during the menopause indicating the hormonal involvement. The benign breast disorders include mastitis, fibroadenoma, cysts, mastalgia, nipple discharge, Galactocele etc [1].

Galactocele is described as the rare disease by the Office of Rare Diseases (ORD) of the National Institutes of Health (NIH) [2].

A Galactocele is a milk filled cyst in the lactating women. The woman with galactocele may feel the smooth and movable breast lump which can cause discomfort. This occurs more frequently when the

breast feeding is stopped and milk is retained and becomes stagnant inside the ducts. Size of galactoceles can vary, and they may end up being several inches in diameter, though they can also be much smaller [2].

### Case History

A patient AX, 30 years married female (P<sub>1</sub>G<sub>1</sub>L<sub>1</sub>A<sub>0</sub>) is a housewife. The patient was apparently well 4 years back when she noticed a lump in her right breast which was small in size initially, gradually increased in size attaining cricket ball size. There is history of on/off pain in her right breast for last two years. It was insidious in onset, radiates to right side of back. No history of discharge from nipple, fever, trauma

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etc. there is no history of Diabetes mellitus, hypertension, tuberculosis. the patient also has the patient of hypothyroidism (and is on regular medication)

#### *Physical Examination with Findings*

Patient's G.C was stable and vital signs were within normal limit. Chest was clear, no added sound heard. CVS was normal, S<sub>1</sub>, S<sub>2</sub>, heard no murmur. Abdomen was soft, non-tender and no organomegaly detected. CNS is also found to be normal.

Lump measuring 8×6cm approx. present in right breast which was firm in consistency and spherical mass involving the whole breast was found. Lump was mobile and not fixed to skin or underlying tissue.

Right axilla is normal/ clinically negative. No discharge from nipple was present. Right breast was bulkier than the left breast. Right breast nipple was

inverted & lowers in position than left and engorged visible vessels could be seen.

#### *Pathophysiology*

It is essentially a retention cyst resulting from lactiferous duct occlusion. Diagnosis can be achieved with percutaneous aspiration. Biochemical analysis of material aspirated from galactocoeles shows variety of proportions of proteins, fat, and lactose. Macroscopically, the milk within the galactocoele may appear white and of usual viscosity if fresh, or thickened if the liquid is older<sup>3</sup>.

#### *Lab and Diagnostic Findings*

The patient's lab tests including hemoglobin (11.8gm) was in normal range and TLC was in lower range of normal value i.e. 3800cells/cu-mm.

Book picture	Patient picture
<ul style="list-style-type: none"> <li>Mammography: Mammographic appearance of galactocoele can be varied depending on the fat and protein content and the consistency of the fluid<sup>4</sup>.</li> <li>Fine needle aspiration to rule out the presence of cancerous condition and aspiration cytology<sup>4</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Sonomammography was performed on the patient which showed echoes and debris on the duct in superficial mammary zone of Right breast.</li> <li>On aspiration thick milk was aspirated. <b>Aspiration cytology</b> was also done. Smears of mild cellularity show occasional <b>benign ductal epithelial cells</b> along with few macrophages on a lipid amorphous background. Cytological feature are of <b>benign lesion</b> which are compatible with diagnosis of <b>Galactocele</b>.</li> </ul>

#### *Procedure*

Book picture	Patient picture
<ul style="list-style-type: none"> <li>When the hormonal change associated with pregnancy and lactation cease, the condition should resolve on its own. But, in cases of true discomfort, attempts may be made to 'drain' the galactocoele through fine needle aspiration. In fact, the diagnostic aspiration of fluid from the cyst may prove to be therapeutic at the same time<sup>6</sup>.</li> <li>However, if the galactocoele becomes infected, it may require surgical removal<sup>6</sup>.</li> </ul>	<p>The patient underwent Galactocele excision. The lump (A well encapsulated cystic consistency mass involving the complete breast with inverted nipple) was gradually dissected from the breast.</p>

#### *Postoperative Course*

The post-operative period of the patient was uneventful. The patient's condition was satisfactory as she was accepting orally, self-voiding and ambulatory. The patient was treated with

- Inj. Augmentin ( Broad spectrum Antibiotic) 1.2gm 8 hourly
- Inj. Amikacin (Broad spectrum Antibiotic) 500mg BD
- Inj. ketorolac (NSAID) 30mg
- Inj. Rantac (Histamine-2 blocker) 150mg BD

The above said treatment was continued for 3 days

postoperatively. The patient was discharged after 3 days of surgery. The treatment at discharge was:-

- Tab. Augmentin (Broad spectrum Antibiotic) 625mg TDS
- Tab. Flexon(NSAID) 1 tab. TDS
- Tab. Rabicip (Proton pump inhibitor) 20mg 1 tab. OD
- Cap Bifilac (Probiotic) 1 BD
- Tab. Thyronorm(Synthetic Thyroid hormone)75 microgram 1OD to continue

The patient was told to take this treatment for 7 days (except Thyronorm) and come for follow up after

one week.

#### *Prevention of Galactocele [7]*

- Proper nursing technique and frequent breastfeeding minimize the formation of plugged ducts and further occurrence of galactocele.
- Avoiding unnecessary creams on nipples.
- Express milk from the breasts if the infant cannot empty it.
- As galactocele occur due to plugged duct, so local heat should be applied to the affected area and gently massage the affected region in the direction of nipple before and during feedings.
- Using good mechanical support of the breast with a well-fitting brassiere are helpful.
- Avoid prolonged use of nursing pads for absorbing milk.

#### **Discussion**

This case presents a patient with galactocele of right breast which was diagnosed with the help of sonomammography and aspiration cytology. The patient then underwent the galactocele excision under general anesthesia with all aseptic precautions. The patient's condition was satisfactory at discharge, was ambulatory, self-voiding and accepting oral feedings.

Maria shabbirsaria, Masoomraza mirza (2010) conducted a study to assess the pattern of breast diseases during pregnancy and lactation, they found that galactocele is one the significant breast diseases which occur during pregnancy and lactation. It was also concluded in the study that most of these breast diseases are inflammatory & infectious and carcinoma is rare in such cases [8].

Elsa R. J. Giugliani (2004) conducted a study on Common problems during lactation and their management and concluded that Most common problems associated with breastfeeding can be prevented if the mother empties her breasts effectively [9].

#### **Conclusion**

Galactococele occur as a result of ductal obstruction during lactation but more commonly noted after cessation of lactation, when the milk becomes stagnate inside the breast. These are the smooth, mobile and tender masses which are the localized collections of milk [10]. Aspiration act as both diagnostic and curative. It yields fluid milk when performed during lactation phase or soon after cessation of lactation and yields more thickened cheesy material from the older lesions. Ice packs and good mechanical support of the breast with a well-fitting brassiere are helpful.

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