# A large Bluedome Cyst of Bloodgood of Breast: A case report

<sup>1</sup>Hikeno K Yeptho, <sup>2</sup>Sanjay Singh, <sup>3</sup>Chandan Kumar Samal, <sup>4</sup>Akash Kumar Gupta, <sup>5</sup>Manoj Kumar Das

<sup>1</sup>Junior Resident Academic, General Surgery, RIMS, Ranchi, Jharkhand, India
<sup>2</sup>Junior Resident Academic, General Surgery, RIMS, Ranchi, Jharkhand, India
<sup>3</sup>Junior Resident Academic, General Surgery, RIMS, Ranchi, Jharkhand, India
<sup>4</sup>Junior Resident Academic, General Surgery, RIMS, Ranchi, Jharkhand, India
<sup>5</sup>Junior Resident Academic, General Surgery, RIMS, Ranchi, Jharkhand, India
<sup>6</sup>Corresponding Author: Hikeno K Yeptho

# Abstract:

Cyst within breast parenchyma is fluid filled epithelial lined cavities that vary in size from microscopic to large palpable masses [1]. The term "blue dome cyst" was first employed to designate a benign cyst filled with strawcolored fluid that showed a blue color when cut down on [2]. Breast cyst are usually small and multiple, Here we present a case of a large cyst in the right breast measuring about 15x10 cm clinically and containing about 500ml of fluid measured intra-operatively in a 60 year old. A Bluedome cyst of bloodgood this large has been rarely reported in this age group. Fewer than 5% of cysts occur in women over the age of 60 years [3]. **Keywords:** Breast Cyst, Breast lump, Bluedome cyst, benign breast disease, breast swelling, simple cyst

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# I. Introduction

Breast Cysts are cavities lined by epithelium in breast containing fluid. It is due to non integrated stromal and epithelial involution (ANDI). It arises from destruction and dilation of breast lobule and terminal ducts [4]. It is an Estrogen dependent condition where one of the cyst from fibrocystadenosis may become clinically enlarged containing a brownish fluid with thin bluish capsule known as the Bluedome cyst of bloodgood.

Breast cysts are the most common type of breast mass with peak incidence in premenopausal and perimenopausal women but can be seen in women of all ages. Breast cysts can present as palpable masses and might be associated with tenderness or nipple discharge, but usually they are asymptomatic and are detected as masses on screening mammography [5, 6]. When diffuse, small, multiple cysts are the main component, it is called Schimmelbusch's disease. They are often multiple, may be bilateral and mimic malignancy and hence proper investigations and treatment should be planned [7].



# Case report:

A 60 year old post menopausal women presented to our department with complain of right breast swelling for the past 1 year which was painless but slowly increasing in size(Figure 1). No history of previous breast disease. No history on Tuberculosis, Diabetes mellitus, hypertension or any other significant medical illness in the past.

General Examination shows no evidence of skin lesions and masses elsewhere. On local examination, left breast and bilateral axilla appears normal. However, right breast appears significantly enlarged with engorged veins. Nipple and areola appears distorted and enlarged as compared to the left side. On palpation a lump was palpable measuring about 15x10 cm with tensed cystic consistency and no associated tenderness or nipple discharge. Lump was fixed to nipple areola complex but not fixed to underlying muscles and chest wall.

Aspiration of the lump was done and which showed hemolysed blood like content (Brownish in color) as shown in Figure 2.

Ultrasound of B/L breast showed a large cystic avascular space occupying lesion in right breast. FNAC was then done which revealed features suggestive of Bluedome cyst of bloodgood.

Patient was that prepared for Surgery as a cyst of this size and volume is unlikely to resolve by merely repeated aspiration. Cyst excision was done along with excision of right nipple areolar complex (Figure 3). About 500ml of opaque brownish fluid was aspirated intra operatively.

Defect was then closed after securing proper hemostatis.



Figure 1



#### **II.** Discussion:

Benign breast cysts are common condition of breast which occurs mostly after 35 years of age upto menopausal age but can occur any age. A large cyst as described in the case above in a post menopausal age is not a frequent presentation. Fewer than 5% of cysts occur in women over the age of 60 [8]. Differential diagnosis can be a simple breast cyst, hematoma, cystic necrosis in a carcinoma, brodie's disease, galactocele, lymph cyst and hydatid cyst of breast. Intracystic Carcinoma is exceedingly rare. Investigation should be done to rule out other causes of breast swelling and to rule our Breast carcinoma. A palpable mass can be confirmed to be a cyst by direct aspiration or Ultrasonography. There is increasing evidence that multiple recurrent cysts are associated with a small (but significant) increase in breast cancer risk [9]. Diagnosis is made by proper clinical examination, imaging modalities such as Ultrasonography and mammography, followed by FNAC for cytological examination. Once the diagnosis of Bluedome cyst is confirmed treatment is ideally by aspiration of fluid from the cyst. Multiple recurrent cysts may constitute a considerable nuisance and justify short-term therapy with danazol. If the Cyst recurs even after two aspirations, surgical excision can be planned. Excision specimen should be sent for Histopathological examination for further investigation and dealt with accordingly.

#### **III. Conclusion:**

A cyst in the breast especial in a perimenopausal women can be usually confused with a carcinoma and hence cause psychological disturbances to the patient and family. Treatment will vary between a Benign cyst of breast and a carcinoma and hence should be evaluated carefully to rule out outher probable causes of breast lump.

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