



## A Case Report of the Three-Years-Old Girl with Unilateral Amastia

Zahra Ghanbari<sup>1\*</sup>, Rana Shokouhmand<sup>2</sup>

### Article History:

Received March 2013

Accepted April 2013

Available online May 2013

### Keywords:

Amastia,  
Breast  
Congenitally

### Corresponding Author:

Zahra Ghanbari, General  
Physician, Islamic Azad University  
Tabriz Branch, Iran  
Tel: +989143057376  
Email: dr\_zahra2009@yahoo.com

### Abstract

Since breasts are the symbol of femininity, deformation or lack of the breasts greatly impairs the mental quality of life for the female patients. Psycho-sociological importance of this issue, has caused many studies to work on breast implants (1,2,3,4). Amastia is a rare condition where the breast or nipple is absent. Amastia can be due to: congenital, teratogen exposure, injuries sustained during thoracotomy, Chest tube placement, and inappropriate biopsy of the breast and radiotherapy of severe burns. Unilateral amastia is often associated with absence of the pectoral muscles. Bilateral amastia is associated in 40% of cases with multiple congenital anomalies involving other parts of the body as well. We had a rare case of a patient with unilateral amastia, where, in spite of the right-side of the breast being intact, the left-side of the breast was absent. The present article presents the case with reference to past reports of amastia. A three-years-old girl with unilateral of breast tissue, areola and nipples. No other anomalies were noted. Investigation done during the hospital stay including ultrasonography of the chest wall, abdomen and pelvic were all normal.

1-General Physician, Islamic Azad University Tabriz Branch, Iran

2-Midwifery, Marand Health Network, Iran

## Introduction:

Amastia is a rare condition and refers to a condition where breast tissue, nipple, and areola are absent. Amastia is described in the Holy Bible as: "We have a little sister and she had no breast" either congenitally or iatrogenically. Amastia differs from Amazia. Amazia refers to a condition where one or both of the mammary glands are absent (the nipple and areola remain present) (5). Unilateral amastia is often associated with absence of the pectoral muscles. Bilateral amastia is associated in 40% of cases with multiple congenital anomalies involving other parts of the body as well. We had a rare case of patient with congenital unilateral Amastia where, the right-side breast of the patient was intact but the left-side breast was absent.

## Case report:

A three-years-old girl with unilateral absence of breast, referred to the Shahid Madani Clinic of Marand (University of Medical Sciences, Tabriz, Iran). No other anomalies were noted. Investigation done during the hospital stay including ultrasonography of the chest wall, abdomen and pelvic were all normal. The girl's mother had pregnancy hypertension and because of the history of 3 abortions she was treated with enoxaparine during the pregnancy. There was no history of genetic disease in the family. (Figure 1)

## Discussion:

Since the breasts are the symbol of femininity, deformation or lack of the breast greatly impairs the mental quality of life for female patient. In view of the psychosociological importance of the breast, many studies regarding reconstruction have been reported. In embryological development, mammary glands are considered as modified apocrine sweat glands which first appear at the sixth week of gestation in the form of ectoderm ridges lining up in the caudal direction from the bases of bilateral upper limb buds (Figure 2 A). The ectodermal ridge gradually grows thicker (Figure 2 B) and compresses the

mesodermal layer. As proliferation of the ectodermal cells continues to grow into the mesodermal layer to form clusters (Figure 2 C). The clusters grow further, forming lobules (Figure 2 D). In the fifth month of gestation, 15-20 cords of ectodermal cells sprout out of each lobule. The cells in the central parts of the cords develop apoptosis, forming tunnels. Meanwhile, the cell cluster from which the cords branched out also develops apoptosis on its surface, forming a pit. The tunnels and pit connect with one another (Figure 2 E). At the final stage of gestation, the pit protrudes to form the nipple. Thus, the mammary gland is formed. Impairment of some or all part of these processes causes hypoplasia or aplasia of the breast.

Amastia can also be due to: Teratogen exposure, Injuries sustained during Thoracotomy, Chest tube placement, Inappropriate biopsy of the breast, Radiotherapy severe burns.

## Conflict of interest statement:

We declare that we have no conflict of interest.

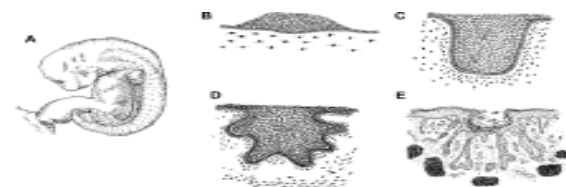
## Acknowledgments:

We have no acknowledgements to disclose.

**Figure 1:** A three-years-old girl with unilateral absence of breast



**Figure 2:** Embryological development of the mammary gland



**References:**

- 1-Tind holdt, TT,Saidian S, TØnseth KA. Microcirculatory evaluation of deep inferior artery perforator flaps with laser Doppler perfusion imaging in breast reconstruction. *J Plast Surg Hand Surg* 2011; 45:143-147
- 2-Minabe T, Harii K, Imanishi N. Latissimus dorsi flaps oriented on the lateral intercostals artery perforators: anatomical study and application in autologous breast reconstruction. *J Plast Surg Hand Surg* 2011; 45:58-65
- 3-Gopie JP, Hilhorst MT, Kleijne MA, et al. Women's motives to opt for either implant or DIEP-flap breast reconstruction. *J Plast Reconstr Aesthet Surg* 2011; 64:1062-1067
- 4-Damen Th , Wie W, Mureau MA , et al. Medium-term cost analysis of breast reconstruction in a single Dutch centre:A comparison of implants, implants preceded by tissue expansion,LD transposition and DIEP flaps. *J Plast Reconstr Aesthet Surg* 2011; 64:1043-1053
- 5- Ozsoy Z, Gozu A, Ozyigit MT, Genc B. "Amazia with midface anomaly :case report". *Aesthetic Plast Surg* 2007; 31(4):392-394