

Bilateral Axillary Accessory Breast Resection in a Young Woman: Case Report And Literature Review

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ABSTRACT

Introduction: Accessory breast tissue, or ectopic breast tissue, is a rare congenital anomaly resulting from incomplete involution of the embryonic mammary ridge. Although it is usually asymptomatic, it may become clinically apparent during periods of hormonal stimulation, presenting with pain, enlargement, functional limitation, and aesthetic or psychological distress. The axillary region is one of the most common locations.

Case presentation: We present the case of a 20-year-old female patient with a history of bilateral accessory breast tissue present since the early stages of development. During the six months prior to consultation, she experienced progressive and cyclical enlargement of the axillary tissue, associated with mild pain, functional limitation of the upper extremities, and a significant impact on self-esteem and body image. Physical examination revealed bilateral axillary accessory breasts, classified as Kajava type I on the right and type II on the left. Bilateral breast and axillary ultrasound showed ectopic glandular tissue without evidence of malignancy and was classified as BI-RADS 2. Bilateral mastectomy of the accessory breasts was performed by direct excision through elliptical incisions under anesthetic sedation. Histopathological examination confirmed benign breast glandular tissue without atypia or malignancy. The postoperative course was satisfactory, with no immediate or late complications. At the one-month follow-up, adequate wound healing, absence of seroma, hematoma, or infection, complete recovery of mobility of both upper extremities, and significant improvement in the patient’s self-esteem, body image, and aesthetic satisfaction were observed.

Conclusions: Bilateral accessory breast tissue should be considered in the differential diagnosis of axillary masses in young women. Clinical evaluation complemented by imaging studies allows for accurate diagnosis and exclusion of malignant disease. In symptomatic patients, surgical resection is a safe and effective therapeutic option associated with functional, aesthetic, and psychological improvement. This case contributes to the clinical recognition and comprehensive management of an uncommon condition whose impact on quality of life is often underestimated.

KEYWORDS: accessory breast; polymastia; ectopic breast tissue; axillary region; case report.

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INTRODUCTION

Ectopic breast tissue develops as a result of incomplete embryological regression of the mammary ridge, which extends bilaterally from the axillary folds to the inguinal folds during the fifth and sixth weeks of gestation (1).

This ridge regresses in utero, above and below the pectoral muscle, except at the fourth intercostal space (2). Incomplete

involution of the mammary ridges results in congenital breast malformations classified as polymastia and polythelia. Polymastia is a term used to describe the presence of more than two breasts, with or without nipples. It may be unilateral or bilateral (3) (4). Of these supernumerary breasts, 90% are located on the thorax, 5% on the abdomen, and 5% in the axillary region (5).

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Accessory breast tissue is present at birth in 1% of the population (both men and women) and affects approximately 200,000 Americans. Although a third nipple is the most common of these anomalies, polythelia may present with as many as eight nipples (6) (4).

The presence of supernumerary breasts often goes unnoticed. In some cases, they may be associated with renal diseases, particularly when associated with polythelia. It is important to rule out associated conditions because changes may occur throughout life, including enlargement during lactation, cyclical pain associated with menstruation, hypersensitivity, axillary thickening, difficulty with shoulder movement, and irritation (7).

We present the case of a young patient with symptomatic bilateral axillary accessory breasts successfully managed by surgical resection, with emphasis on the clinical characteristics, diagnostic approach, treatment performed, and functional and aesthetic outcomes.

CASE REPORT

A 20-year-old mestiza female patient, a student and resident of Tetiz, Yucatán, Mexico, with menarche at age 13, regular menstrual cycles, and nulligravida status, was evaluated. At the preoperative assessment, her body mass index was 29 kg/m², corresponding to overweight according to the World Health Organization classification. She denied any significant personal medical history, previous surgical procedures, use of hormonal contraceptives, smoking, alcohol consumption, or other substance use. She reported predominantly following a Mediterranean diet and had no family history of breast cancer, ovarian cancer, or other hereditary neoplasms. From a psychosocial perspective, she reported a significant impact on her self-esteem, self-perception, and body image resulting from the presence of bilateral accessory breast tissue, which prompted her to seek medical attention and express a desire for definitive surgical treatment.

The patient reported that the accessory breast tissue had been present since the early stages of her development; however, during the six months prior to consultation, she noticed a progressive increase in size and volume in both axillary regions. This enlargement followed a cyclical pattern, increasing during certain periods of the menstrual cycle. In addition to the aesthetic alteration, she reported mild local pain and partial functional limitation when attempting full elevation of the upper extremities, causing discomfort during daily activities and negatively affecting her quality of life. During the interview, she repeatedly expressed dissatisfaction with the physical appearance of the lesions and the emotional impact they caused.

On physical examination, the breasts were pendulous, symmetrical, and medium-sized. (*Figures 1–3*). In the right axillary region, an accessory breast measuring approximately 4 × 5 cm with a nipple-areola complex was identified, with no evidence of nipple discharge, suspicious palpable masses, or axillary lymphadenopathy. In the left axillary region, an

accessory breast measuring approximately 4 × 4 cm associated with polythelia was observed, likewise without nipple discharge, palpable masses, or regional lymphadenopathy. A complete examination of both mammary glands and axillary lymph node chains revealed no additional pathological findings.

As part of the diagnostic protocol, bilateral breast and axillary ultrasound was performed using a 7.5 MHz linear transducer. The study showed no abnormalities of the skin, subcutaneous tissue, or nipples; no dilation of the mammary ducts; a moderate amount of adipose and glandular tissue distributed throughout the four breast quadrants; and no areas of fibrosis, cystic lesions, or nodular images. In both axillary regions, a moderate amount of ectopic glandular tissue was observed, predominantly in the right axillary region, consistent with supernumerary breasts located in the anterior axillary region and tail of Spence, without evidence of suspicious abnormalities. The study was classified as BI-RADS 2. Mammography was not performed because of the patient's age and the absence of clinical or ultrasonographic findings suggestive of malignancy.

A subjective assessment of the aesthetic and psychological impact was also performed through a clinical interview based on the domains of the BREAST-Q questionnaire, identifying a significant impairment in body satisfaction, psychosocial well-being, and personal body image related to the presence of the accessory breasts.

Diagnostic reasoning was based on the correlation between clinical and imaging findings. The differential diagnoses considered included axillary lipoma, reactive lymphadenopathy, hidradenitis suppurativa, epidermal cyst, prominence of the tail of Spence, and axillary pseudobreast secondary to localized adiposity. However, the presence of ectopic breast glandular tissue associated with an accessory nipple-areola complex and polythelia, together with the ultrasonographic findings, allowed the diagnosis of bilateral accessory breasts to be established. Subsequently, histopathological confirmation of benign ectopic breast tissue definitively ruled out other diagnostic entities.

Because of the functional, aesthetic, and psychological impact reported by the patient, surgical treatment consisting of bilateral mastectomy of the accessory breasts was performed. Prior to the procedure, antibiotic prophylaxis with 1 g of intravenous cephalothin was administered. Surgery was carried out under anesthetic sedation using elliptical incisions located along the anterior axillary line. Careful dissection through the anatomical planes was performed, with complete resection of the accessory glandular tissue followed by layered closure. The total operative time was approximately one hour and thirty minutes. During the procedure, ectopic breast tissue measuring approximately 8 × 5 cm was identified in the right axillary region and ectopic breast tissue measuring 5 × 5 cm in the left axillary region, with an estimated blood loss of 100 mL. At the end of the procedure,

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Penrose drains were placed, and a compression dressing was applied for one week.

The surgical specimens were sent for histopathological examination. (Figure 4). Microscopic analysis showed benign breast glandular tissue consistent with bilateral accessory breasts, with no evidence of cellular atypia, proliferative hyperplasia, premalignant changes, or malignancy. The surgical margins were free of lesions.

During the postoperative period, analgesic treatment with ibuprofen and outpatient monitoring were prescribed. The clinical course was satisfactory, with no immediate or late complications. The drains were removed without significant output. At follow-up seven days after surgery and subsequently one month after the procedure, adequate healing of the surgical wounds was observed, with no seroma,

hematoma, infection, or dehiscence, as well as complete recovery of mobility of both upper extremities. The patient reported resolution of the previously described pain and functional limitation, along with a significant improvement in self-esteem, body image, and satisfaction with the aesthetic outcome.

No adverse events related to the surgical procedure were documented, and no reintervention was required. Due to complete resolution of symptoms, absence of postoperative complications, and benign histopathological findings, no long-term follow-up beyond the first month was available, which represents a limitation of the present report. Written informed consent was obtained for the surgical intervention, photographic documentation, and publication of the clinical case.

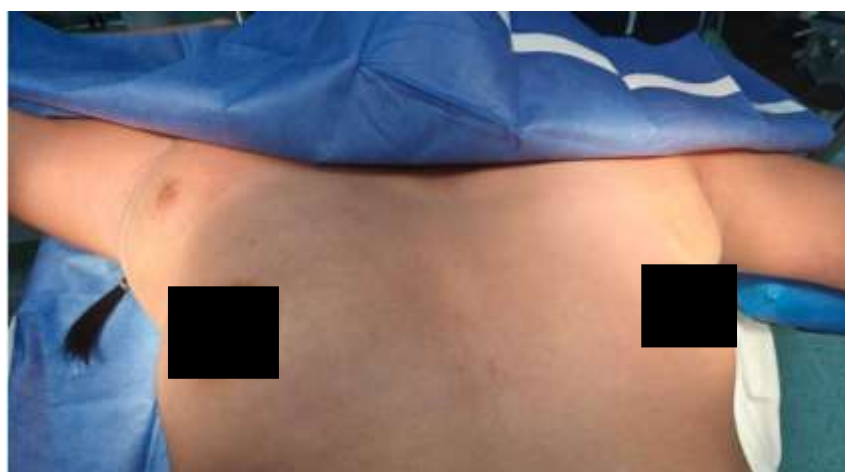


Figure 1. Preoperative view of the right and left accessory breasts



Figure 2. Preoperative view of the right accessory breast



Figure 3. Preoperative view of the left accessory breast

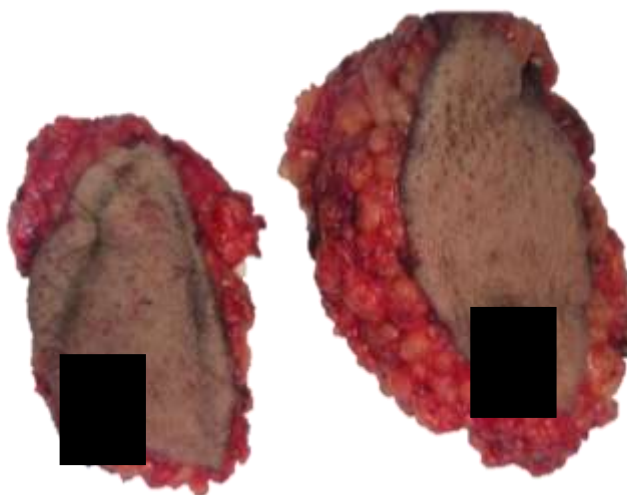


Figure 4. Postoperative view of the right axillary region (A) and left axillary region (B) following surgical resection of the bilateral accessory breasts.

DISCUSSION

The diagnosis of accessory breast tissue is primarily clinical and should be complemented by imaging studies according to the patient's age and the characteristics of the lesion. In young women, ultrasound is the initial imaging modality of choice, as it allows ectopic breast tissue to be differentiated from other axillary masses and helps rule out suspicious lesions.

The differential diagnosis should include both benign and malignant conditions. These include lipomas, epidermoid cysts, lymphadenopathy, hidradenitis suppurativa, and neoplasms. In cases of polythelia, its association with renal anomalies, hypertrophic pyloric stenosis, cardiac disorders, and urologic neoplasms should also be considered (8,9).

Polymastia usually becomes evident during adolescence due to the hormonal changes characteristic of this stage; however, it may also become apparent or increase in size during pregnancy and the puerperium. The classification proposed by Kajava in 1915 (*Table 2*) remains the most widely used

system for classifying supernumerary breasts according to the presence of glandular tissue, areola, and nipple (12).

Surgical treatment is indicated in symptomatic patients once breast development has been completed. Its purpose is to relieve symptoms, improve the axillary contour, and achieve a satisfactory aesthetic outcome. The most commonly used surgical techniques include direct excision, liposuction, or a combination of both (10). Direct excision allows complete removal of adipose and fibroglandular tissue through an elliptical incision and is particularly useful when glandular tissue predominates (10). Some studies have reported a higher frequency of complications in patients managed with drains, including seroma and surgical site infection, compared with those in whom drains were not used (11).

In a series published by Alcibiades Aranda, F. Valencia, and Merchán-Galvis A., 51.2% of the 81 patients presented with unilateral lesions and 48.8% with bilateral lesions, with the axillary location being the most common (11). These findings

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suggest a higher frequency of bilateral involvement than that described in some classic publications.

Although uncommon, ectopic breast tissue can develop the same benign and malignant diseases as eutopic breast tissue, including breast carcinoma; therefore, its recognition and appropriate clinical evaluation are essential.

In the present case, the clinical diagnosis was corroborated by breast ultrasound classified as BI-RADS 2, which made it possible to rule out malignant disease and offer definitive surgical treatment. The patient reported the presence of accessory breast tissue since the early stages of development, with progressive enlargement during the six months prior to consultation and exacerbation of symptoms in relation to the menstrual cycle, a clinical pattern previously described in the literature.

Due to the predominance of glandular tissue and the presence of clearly identifiable accessory structures, direct excision through an elliptical incision with layered closure was selected. Despite the use of Penrose drains, the patient did not develop postoperative complications such as seroma, hematoma, infection, or functional limitation and had a satisfactory recovery.

The clinical presentation was bilateral and involved both axillary regions, consistent with the findings described by Aranda et al. (11). According to the Kajava classification, the

patient had a type I accessory breast on the right side and a type II accessory breast on the left (12).

The strengths of the present case include adequate clinical-radiological correlation, histopathological confirmation of the diagnosis, and assessment of the functional, aesthetic, and psychological effects associated with the condition. The patient had a favorable outcome, with complete resolution of pain and functional limitation, as well as significant improvement in her perception of body image and satisfaction with the aesthetic outcome. As a limitation, long-term follow-up was not available due to satisfactory clinical resolution and benign histopathological findings. Furthermore, although aspects related to body satisfaction were explored through a clinical interview based on the BREAST-Q domains, no validated quantitative score was obtained before and after treatment.

The present case highlights the importance of considering accessory breast tissue in the differential diagnosis of axillary masses in young women. Clinical evaluation complemented by ultrasound and histopathological examination allowed the diagnosis to be established and malignant disease to be ruled out. Surgical resection was a safe and effective treatment, resulting in symptom resolution, functional recovery, and significant improvement in the patient's self-esteem, body image, and quality of life.

Table 2. Source: Adapted from Surcel E, Koljonen V. Kajava Classification: The Person and the Research. Aesthetic Plastic Surgery. 2023;47(5):2177–2178. (12)

<i>Class</i>	<i>Name</i>	<i>Characteristics</i>
<i>Class I</i>	Polymastia	Complete breast(s) with nipple, areola, and glandular tissue
<i>Class II</i>	Supernumerary breast without areola	Nipple and glandular tissue, no areola
<i>Class III</i>	Supernumerary breast without nipple	Areola and glandular tissue, no nipple
<i>Class IV</i>	Mamma aberrate	Only glandular tissue
<i>Class V</i>	Pseudomamma	Nipple and areola, no glandular tissue, replaced by fat
<i>Class VI</i>	Polythelia	Nipple only
<i>Class VII</i>	Polythelia areolaris	Areola only
<i>Class VIII</i>	Polythelia Pilosa	Patch of hair only

CONCLUSION

Symptomatic bilateral axillary polymastia is an uncommon clinical condition that should be considered in the differential diagnosis of axillary masses in young women. In the present case, clinical and histopathological evaluation confirmed the diagnosis and ruled out malignant disease. Surgical treatment was effective, providing symptom relief and a satisfactory aesthetic outcome, with a favorable impact on the patient's quality of life. Although the Kajava classification remains a useful tool for the anatomical characterization of supernumerary breasts, a comprehensive evaluation is important to identify associated anomalies, particularly in patients with polythelia. The limited documentation of

surgically treated cases of symptomatic bilateral polymastia highlights the importance of reporting this condition, thereby contributing to its clinical recognition, diagnostic approach, and evidence-based therapeutic decision-making.

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Data Confidentiality: The authors declare that no patient data appear in this article.

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Ethical Considerations: Written informed consent was obtained from the patient for the publication of this case report and the clinical images. The study was conducted in accordance with the principles of the Declaration of Helsinki and institutional ethical standards. The confidentiality of the information and the patient's anonymity were ensured by avoiding the inclusion of data or images that could allow her identification.

REFERENCIAS

- I. Salemis, N. S. (2021). Primary ectopic breast carcinoma in the axilla: A rare presentation and review of the literature. *Breast Disease*, 40(2), 109–114. <https://doi.org/10.3233/BD-201027>
- II. De Silva, N. K. (2018). Breast development and disorders in the adolescent female. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 48, 40–50. <https://doi.org/10.1016/j.bpobgyn.2017.08.009>
- III. Zaldívar-Castillo, D., Figueroa-Villar, D. A., Romero-Reyes, Y., & Benítez, M. D. (2024). Minor anomalies of mammary glands: Polymastias and polythelias, an overview. *Anales de Medicina*, 313–316.
- IV. Hadhoud, K. M., Hegazy, A. A., & Hegazy, M. A. (2021). Polythelia associated with hypogonadotropic hypogonadism in young male: A rare abnormality. *International Journal of Cadaver Studies and Anatomical Variations*, 2(2), 37–41.
- V. Mazine, K., Bouassria, A., & Elboughaddouti, H. (2020). Bilateral supernumerary axillary breasts: A case report. *Pan African Medical Journal*, 36, 282. <https://doi.org/10.11604/pamj.2020.36.282.20445>
- VI. Greydanus, D. E., Matytsina, L., & Gains, M. (2006). Breast disorders in children and adolescents. *Primary Care: Clinics in Office Practice*, 33(2), 455–502. <https://doi.org/10.1016/j.pop.2006.02.002>
- VII. Caouette-Laberge, L., & Borsuk, D. (2013). Congenital anomalies of the breast. *Seminars in Plastic Surgery*, 27(1), 36–41. <https://doi.org/10.1055/s-0033-1343995>
- VIII. Teixeira, I. P., Azzopardi, C., Chowdhury, R., Zsolt, O., Castro, M., & Teh, J. (2020). Ectopic breast tissue presenting as an enlarging abdominal mass. *Radiology Case Reports*, 15(6), 733–736. <https://doi.org/10.1016/j.radcr.2020.02.028>
- IX. Roldán-Aviña, J., Merlo-Molina, S., Pérez-de la Fuente, M., & Torres-Gómez, F. (2016). *Mamas ectópicas axilares: indicaciones para el tratamiento quirúrgico*. *Cirugía Mayor Ambulatoria*, 21(1), 37–40.
- X. Papaoikonomou, M. A., Michailidou, E., & Chlorou, A. (2025). Axillary ectopic breast tissue presenting with cyclical swelling: A case study. *Cureus*, 17(5), e83618. <https://doi.org/10.7759/cureus.83618>
- XI. Aranda, A., Valencia, F., & Merchán-Galvis, Á. (2023). Supranumerary breast: Resection by open technique with drain vs without drain. *Revista Colombiana de Cirugía*, 38(4), 624–631. <https://doi.org/10.30944/20117582.2278>
- XII. Surcel, E., & Koljonen, V. (2023). Kajava classification: The person and the research. *Aesthetic Plastic Surgery*, 47(5), 2177–2181. <https://doi.org/10.1007/s00266-023-03451-7>