

# Axillary accessory breast gland – a case report

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**Abstract.** Accessory breast tissues are encountered in a relatively small proportion of population, up to 6% of women. The ectopic breast tissue may be found usually in women, but it was described also in men. We present the clinical case of a 37th year old female diagnosed with an axillary breast, misdiagnosed as a recurrent lipoma. The accessory gland was precepted as a tumoral mass at the base of the left axilla, producing restriction of her left arm movement and also pain. Conclusion: When a breast accessory gland is diagnosed, it has to be removed in order to avoid further complications and malignancy.

**Key Words:** breast gland, axillary, accessory

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## Case presentation

KT, 24 years old female, was admitted for the first time in the surgical department because of a subcutaneous tumor located at the base of the left axilla, discovered a couple of months earlier. She was previously diagnosed with a fibro-cystic mastopathy. The tumor had 3.5x2x2 cm and it was firm, with mobility from the skin and also from the deep tissues, sensible at palpation. The laboratory did not find abnormalities. We suspected an axillary lipoma and it was excised through an incision made at the base of the axilla in local anesthesia. The subcutaneous drain was maintained for 2 days. The histopathological examination revealed an axillary extension of the left breast with discrete fibro-cystic alterations. The evolution was good, without upcoming events. Eight years later, when she was 32 years old, she was admitted once again for an axillary tumor, developed insidiously in the last months. We suspected a lipoma located at the axillary prolongation of the left breast gland. The tumor had 5.0x3.0x1.5 cm, it was tender, with a discrete sensibility when palpated, mobile from the deep tissues. At that time, she was diagnosed also with a uterine leiomyoma and a left ovarian cyst. The tumor was excised also in local anesthesia with 1% Lidocaine, through the postsurgical scar and the cavity was drained for 3 days. The wound has been healed uneventfully. The histopathological exam revealed a lipoma, a vascularized adipose mature tissue. After 5 years, at 37 years old, she was again admitted with multiple breast cysts in both breast glands and with a recurrence of the left axillary lipoma. The local examination revealed an enlargement of the left axillary fatty tissue at the base of the axilla, painful at examination, along with bilateral breast cysts. In fact, the patient could not bear the

brassiere because of local pain given by the so-interpreted left axillary recurrent lipoma, which was located inferior to the previous surgical scar. The tumor was palpable and sensible, measuring 8.0x5.0 cm. The laboratory revealed a slight anemia and hypercholesterolemia. The patient underwent a mammography and also an ultrasonography, but the exams were focused on the fibro-cystic mastopathy. Under general anesthesia we performed a right inferior-external breast quadrantectomy, a left outer upper quadrant breast quadrantectomy, excision of the axillary lipomatous tumor and drainage of the cavities. The outcome was marked with a prolonged lymphorrhagia. The histopathology revealed breast cysts measuring 3 cm, 3.5 cm, 4 cm and 3.9 cm in diameter (breast parenchyma with fibrosis, adenosis extended apocrine metaplasia, dilated cystic ducts, intraductal hyperplasia without atypia, foamy cells; the lipoma, consisted of adipose tissue with ductal structures and breast acinus, measuring 7.5x5.0x2.5 cm. The diagnosis was fibrocystic mastopathy and axillary ectopic breast gland.

The patient signed an informed consent for using data and photos, under the protection of anonymity.

## Discussion

The accessory breast gland is a relatively rare condition, discovered in 0.4-6% of women (Down et al 2003; Tjalma and Senten 2006; Fama et al 2007; Oudsema et al 2017). Usually the age of the patients ranges from the second decade to the sixth decade of life (Aydogan et al 2010). The accessory breast tissue is a remnant persisting after normal embryological development of the breast. During embryogenesis the milk line remnants fail

to regress and may grow in any other part along the milk line, starting from axilla up to the groin, being described even on vulva (Hong et al 2009) or male perineum (Eom et al 2017). In this way an accessory breast tissue may develop, but the tissue contains also fat (Fan 2009).

When nipples are present, they can be noticed at birth, but in case of the absence of nipples but present ectopic breast tissue it can be seen only during puberty, pregnancy or lactation (Velanovich 1995). Many times, these patients may be asymptomatic, but the ectopic breast tissue may produce pain as it was observed in our patient, or restriction of arm movement, or anxiety, or even some degree of discomfort (during menstruation). Also, there are people with a lot of concern because of cosmetic problems (Aydoğan et al 2010). Other patients would like a cosmetic improvement (Fan 2009).

In our patient it was difficult to diagnose the ectopic axillary breast tissue because we were focused on the lipoma, already two times excised, even if the first time the sample contained also axillary left breast gland prolongation. The last time, the so-called recurrent axillary lipoma, in fact was situated lower and backwards from the previous scar. Also, it was interesting that the breast ectopic tissue became enlarged not in puberty but in adulthood, possibly because of hormonal disfunctions which led to fibro-cystic mastopathy, ovarian cysts and uterine fibroma. Some patients may develop an accessory breast on just one side, others in both sides (Aydoğan et al 2010), and other patients may have just a hypertrophy.

The breast accessory tissues may undergo malignant transformation (Tjalma and Senten 2006; Fama et al 2007; Sanguinetti et al 2010) so we can perform fine-needle aspiration for this tissue. The lifetime risk for women to be diagnosed with breast cancer is 13% (Tjalma and Senten 2006). The malignant transformation can be discovered not only in women, but also in men accessory breast glands (Wang et al 2017). Because of the rarity of the circumstances the diagnosis of malignancy may be delayed for 40.5 months (Visconti et al 2011).

Also, the ectopic breast tissue may be associated with congenital abnormalities (Emsen 2006) such as urological malformations (Fama et al 2007). When nipples are present in ectopic breast tissues, they may be markers of urogenital malignancies or urologic malformations (Velanovich 1995).

The removal of the accessory breast tissues may be performed by surgical excision (Down et al 2003) or liposuction (Aydoğan et al 2010), ultrasound-assisted liposuction (Emsen 2006), or both (Fan 2009; Emsen 2006, Aydoğan et al 2010). The removal of the accessory breast tissue may consist of the fat tissue surrounding the breast tissue and sometimes even the skin which covers it (Fan 2009).

## Conclusion

Ectopic breast masses are a rarely entity found in up to 6% of women, but they may appear also in men. The malignant transformation of this tissue is possible. Usually the patients consult doctors because of cosmetic impairments, but some of them may have diverse grades of discomfort and limbs movement limitation because of the accessory glands. Sometimes the glands may have nipples and produce fluids during lactation or menstruation. Sometimes it is difficult to differentiate the ectopic breast

tissue from a lipomatous tumor. The ectopic breast gland has to be removed either by surgery or by liposuction.

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