



Giant Intraductal Papilloma of Breast

Dalila Vidallé

Grupo Oroño Senology Department, Oroño 450, Rosario, Argentina

María Eugenia Lucena

Grupo Oroño Senology Department, Oroño 450, Rosario, Argentina

Sandra Sarancone

Grupo Oroño Senology Department, Oroño 450, Rosario, Argentina

Encarnación Alonso

Grupo Oroño Senology Department, Oroño 450, Rosario, Argentina

Cristina Crocco

Grupo Oroño Senology Department, Oroño 450, Rosario, Argentina

Gabriela Pairola

Grupo Oroño Senology Department, Oroño 450, Rosario, Argentina

ABSTRACT

Intraductal papillomas are the most common form of papillary lesions. Despite their benign histological aspect, intraductal papillomas may appear with malignant growths, and a biopsy-based diagnosis involves the risk of underestimating breast cancer. This paper includes a literature review of the most relevant studies published to date in relation to a case of giant intraductal papilloma. Treatment is not consistent and depends on the result of clinical and pathological correlations. Therefore, gynecologists need to distinguish women who may be enrolled in the surveillance program from women requiring additional surgical therapy.

Keywords: Intraductal papilloma. Breast cancer. B3 breast lesions. Underestimation.

INTRODUCTION

Papillary lesions of the breast are a heterogeneous group of lesions that include pure intraductal papilloma, papillomas with atypical concomitant lesions [atypical ductal hyperplasia (ADH), lobular neoplasia (LN), ductal carcinoma in situ (DCIS)], papillary DCIS, encapsulated papillary carcinoma, solid papillary carcinoma, and invasive papillary carcinoma. Intraductal papilloma (IP) is the most common form of the breast papillary disease.

Intraductal papilloma is a benign tumor that grows in breast ducts. It is defined as a proliferation of epithelial and myoepithelial cells that cover fibrovascular stalks, creating an arborizing structure within the duct lumen.¹ Based on the location of the tumor, the intraductal

papilloma can be divided into central (ductal) papilloma, usually located under the aureola, and peripheral papilloma, emerging from the terminal duct lobular unit (TDLU).

Central papilloma is often associated with nipple secretion, while peripheral papilloma tends to be clinically concealed. Diagnosis involves distinguishing intraductal papilloma from invasive ductal carcinoma (IDC). The diagnostic and therapeutic challenges of papillary lesions of the breast have been reflected by the increasing number of publications in the last few years, including review articles on diagnostic aspects, molecular characteristics, and the most relevant therapy strategies.²⁻⁷

Papillary lesions used to be part of the most commonly misinterpreted breast lesions and have been under or infradiagnosed.⁷ Papillary lesions diagnosis using core needle biopsy or vacuum-assisted biopsy can be a challenge. Even if fragments of a benign papillary lesion are found in a biopsy sample, the presence of cell atypia in another part of the lesion cannot be ruled out. Diagnostic uncertainty has resulted in the classification of benign papillary lesions in biopsies as lesions of uncertain malignant potential or B3 lesions on a 1 to 5 scale, regardless of the presence of cell atypia.⁸ In addition, an atypical epithelial proliferation diagnosis through biopsy may become complicated. The objective of this literature review is to provide an update of papillary lesions in relation to a case of giant intraductal papilloma of the breast.

CLINICAL CASE

A 65-year-old female patient. Personal history: Hysterectomy at age 40 due to uterine myomatosis. Obesity. Hypertension. Colostomy due to colon cancer at age 59. Referred to Senology in May 2023 due to right breast tumor.



Figure 1: 65-year-old woman. A) A check-up at first visit showed large tumor in right breast. B) Surgical labelling showed outgrowths and ulcerations over skin layer, and arrow-marked aureola-nipple complex. C) Immediate surgical result. D) Late surgical result (after a month).

A breast examination showed right breast reddening and ulceration. Ptosis and large volume in both breasts. Consistently with reddening, a large hard and elastic growth of about 25 cm and suspected right armpit were observed. (Figure 1)

Breast ultrasound shows a large complex solid-cystic mass of about 17 cm with solid 32- and 16-mm protrusions on the external right breast quadrant. (Figure 2) Direct digital mammography shows a well-defined mass over a large part of the right breast. (Figure 3) Resonance imaging of the breast could not be performed due to obesity.

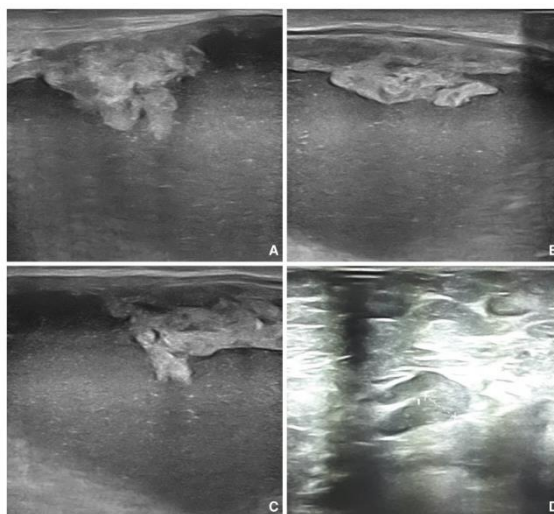


Figure 2: High-resolution linear transducer ultrasound image of the giant intraductal papilloma. A), B) & C) Complex solid-cystic mass involving mainly the external quadrants of the right breast. D) Right axillary lymph node with mild symmetrical cortical thickness.

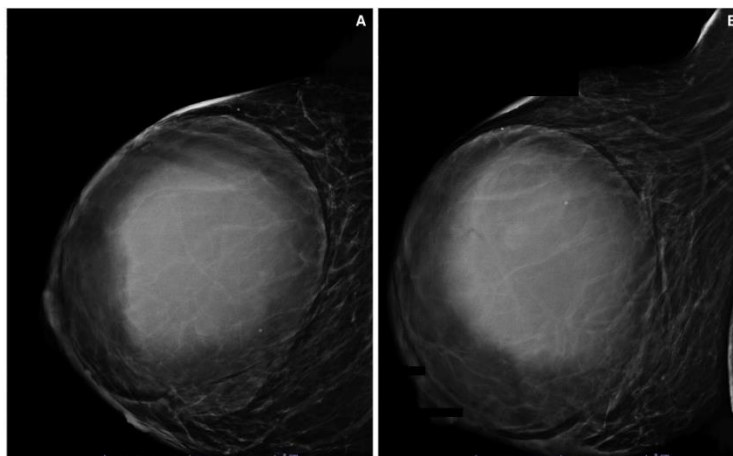


Figure 3: Mass involving a large part of the right breast according to direct digital mammography. A) Cranial-caudal incidence. B) Mid-lateral-oblique incidence.

An ultrasound-guided fine needle aspiration was performed on the right breast, and an ultrasound-guided core biopsy was conducted on the right breast and right axillary node, consistent with cytomorphic features related to inflammatory complication ductal cyst content, negative for neoplastic cells, and no evidence of metastasis on the lymph node parenchyma. The case was discussed by the Committee of Grupo Oroño Senology Department,

and they decided to perform a resection biopsy via right partial mastectomy with bilateral symmetrization oncoplastic breast surgery. The patient preferred to have right unilateral surgery.

Macroscopically, the central right partial mastectomy piece was 40 cm. The skin was 21 cm x 17 cm, including an eccentric aureola-nipple complex of normal appearance. Adjacent to it, there was an outgrown area protruding on the surface of 4.5 cm x 2.6 cm with an ulcerative focus. The section showed a large closed and refractory cystic growth of 17 x 15 x 12 cm, with serosanguineous fluid content, inside a fibrous wall 0.2 to 0.3 cm thick and firm-elastic consistency 0.3 cm away from the posterior side, in contact with the dermis and ulcerating the epidermis. The inner surface of the lesion was brownish and had several outgrowths and endophytes as large as 4 cm in the longest diameter, most of them with an inviable appearance, while others were dense and off-white brownish in color. The scarce surrounding mammary tissue was fully adipose. (Figure 4)



Figure 4: Surgical piece. A) Right central partial mastectomy piece of about 40 cm, including an eccentric aureola-nipple complex of normal appearance. Adjacent to it, there was an outgrown area protruding on the surface of 4.5 m with an ulcerative focus. B) The section showed a large closed and refractory cystic growth of 17 cm, with serosanguineous fluid content, inside a fibrous wall 0.3 cm thick and firm-elastic consistency in contact with the dermis and ulcerating the epidermis. The inner surface of the lesion was brownish and had several outgrowths and endophytic growths as large as 4 cm in the longest diameter.

Microscopically, the piece showed a large intraductal papilloma with usual ductal hyperplasia foci, adenosis, myoepithelial cells hyperplasia, and fibrosclerotic areas. The lesion was 17 cm in the longest diameter, had necro-hemorrhagic complications and marked pericystic fibrosis with a strong chronic active inflammatory process, presence of cholesterol crystals with giant multinuclear cells and hemosiderophage histiocytes. (Figure 5) This inflammatory process extended to the skin tissue, with focal ulceration in the tissue. Surgical margins were free of disease. While extensive sampling did not lead to suspected malignancy, a few sections were selected to search for myoepithelial cells using P 63 and calponin immunohistochemistry. The presence of said cells was confirmed supporting the benign biological behavior of the lesion. Three sentinel lymph nodes with no evidence of metastatic involvement.

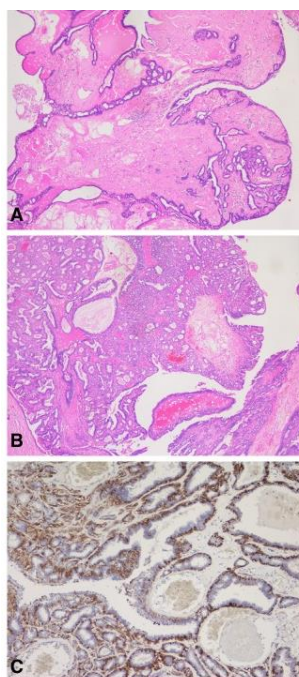


Figure 5: Anatomical and pathological staining patterns. A) & B) Hematoxylin-eosin staining (H and E 10X and 20X) with papillary structures on a fibroconnective axis and covered with a double epithelial and myoepithelial cell layer. C) Calponin immunohistochemistry staining highlighting the myoepithelial cell layer.

Acceptable cosmetic result with high patient satisfaction. (Figure 1)

DISCUSSION

Intraductal papilloma is a benign tumor of the breast that may be associated with atypia, intraductal carcinoma (DCIS) and invasive carcinoma (IC); therefore, it is classified as a high-risk cancer precursor lesion.⁹ Predisposing factors include the use of contraceptives, hormone replacement therapy, exposure to estrogens throughout life, and family history.¹⁰

Papillae are not a feature of normal breast tissue, and the morphogenesis of papillary lesions of the breast is not fully understood.⁷ It has been suggested that some papillary lesions result from coordinated proliferation of stromal and epithelial cells, while in others epithelial proliferation includes the connective tissue of the affected duct wall.⁷

Intraductal papilloma may appear in women of all ages, but they are more common in perimenopausal women aged 30 to 55.^{11,12} Its incidence in men continues to be low.¹³ Papillary lesions represent about 10% of all benign lesions of the breast and less than 1% of malignant breast tumors. The incidence of intraductal papilloma has been estimated to be 2-3% of the female population, but the risk increases up to 40-70% in the case of nipple secretion.¹⁴

Intraductal papillomas are benign intraluminal proliferations that consist of arborizing fibrovascular cores covered by many basal and luminal cells.¹ Intraductal papillomas are the most common papillary lesions of the breast and may be centrally or peripherally located. In some cases, atypical epithelial proliferation may occur, and it is classified based on whether it

extends as intraductal papilloma with atypical ductal hyperplasia (ADH) or DCIS. Intraductal papilloma lacking atypical proliferation is also known as NOS.¹

Symptomatic patients often have spontaneous bloody secretion or serosanguineous secretion in the nipple. Sometimes, an intraductal papilloma may be felt. However, most patients with intraductal papillomas experience no symptoms. Often small intraductal papillomas do not show any signs or symptoms.⁹ It is necessary to evaluate intraductal papillomas as they may host a concealed carcinoma.¹⁵ It is classified as a high-risk cancer precursor lesion due to its association with ADH, DCIS, and IC.⁹

Most IPs are less than 2 cm in size. Giant intraductal papillomas, as in our case, are rarely reported. Intraductal papillomas over 10 cm reported in literature are summarized in Table 1.¹⁶⁻²⁰ Among them, the largest IP described to date was 15 cm.¹⁸ Therefore, the clinical case in this review is the largest intraductal papilloma ever reported in literature.

Table 1: Giant intraductal papillomas (larger than 10 cm) reported in literature.

First author	Year	Age (years)	Size (cm)
Roy I ¹⁶	1985	59	15
Kavolius J ¹⁷	2001	39	11
Minoru K ¹⁸	2010	46	15
Fatemi Y ¹⁹	2015	80	13
Wang S ²⁰	2018	19	10.5

Clinically, it appeared as a large inflammatory mass with outgrown areas and ulcerative focus on the skin surface, far from the aureola-nipple complex of normal appearance. (Figures 1 and 4)

Central papillomas are more common than peripheral papillomas. The largest lesions may appear as nodes or masses. There is often serous or bloody secretion from the nipple. Peripheral papillomas are smaller, often numerous, and generally asymptomatic.

PATHOLOGY

On images, the size and presentation of intraductal papillomas are variable, and range from massive lesions to cystic and calcified lesions. Histology shows papillary proliferation as the basis, with a fibrovascular central core containing ductal and myoepithelial cells.

Histologically, complex arborizing fibrovascular cores covered by myoepithelial and luminal cells are present inside a dilated ductal area. The evidence of two different types of cells is the hallmark of benign papillary lesions and is absent in pre-cancer lesions.²¹ Epithelial cells are cube or column shaped, and the cores may show intranuclear insertions.

In large papillomas, there may be hemorrhage and infarctions as a result of a previous biopsy or fibrovascular core torsion. Sclerosis and stromal fibrosis may simulate a pseudo-infiltrative pattern, and particularly in these cases, myoepithelial markers can be very helpful. In case of histologic doubts regarding the presence of myoepithelial cells, using immunohistochemistry is very useful (p63, basal cytokeratins, estrogen receptors, and calponin).

Epithelial proliferation –usual ductal hyperplasia, ADH, atypical lobular hyperplasia (ALH), and DCIS– is more common in peripheral papilloma. High molecular weight cytokeratins (CK5, CK14) and heterogeneous positivity of the estrogen receptor (ER) reliably confirm pure papilloma with usual epithelial proliferation, even though IP with no atypia may also strongly express ER. On the contrary, the loss of CK5 and uniform ER expression are typically observed in atypical papillary lesions.³ A section of this voluminous refractory cystic growth of 17 cm showed several outgrowths and endophytes of up to 4 cm in the longest diameter, most of which had unviable appearance, while others were dense and off-white brownish in color. (Figure 4B) Myoepithelial cells, either those observed via optical microscopy or identified by immunohistochemistry, are very important to diagnose IP of the breast. We selected p63 and calponin among several myoepithelial markers since they are sensitive and relatively specific markers for myoepithelial cells cores. (Figure 5C) Intraductal papillomas from the axillary extension need to be distinguished from the rare papillary hidradenoma of the sweat glands. In case of an adenomatous growth pattern, adenomyoepithelioma may be considered. Distinction from adenoma of the nipple may be a challenge for central papillomas with sclerosing features. However, adenoma of the nipple derives mainly from the dermoepidermal junction and less frequently from large ducts.¹ Similarly, fat necrosis with cystic and solid areas may simulate a papillary lesion in the cyst. The phyllodes tumor is a benign but high-risk lesion that may also resemble papilloma. Non-papillary malignant tumors, such as medullary carcinoma, may appear with central necrosis or ductal extension simulating a papillary carcinoma.

The current classification by the World Health Organization (WHO) includes four intraductal papillary lesions: a) *intraductal papilloma*; b) *papillary intraductal carcinoma*, both from the B3 category [small isolated papillomas (<2 mm); they may be classified as a B2 lesion if the lesion is fully surrounded by a ductal structure]; c) *invasive or non-invasive encapsulated carcinoma* (papillomas that are totally affected by a more extended DCIS), and d) *in situ and invasive solid papillary carcinoma*, from the B4 or B5a category.⁸ The presence of multiple papillomas (≥5) in part of a breast means an increased risk of atypia or malignant lesion in that location. Patients with multiple papillomas and no atypia have a relative risk (RR) of 3 of developing cancer. The presence of multiple papillomas with atypia represents a RR of 7 of developing cancer.²² Papilloma with atypia is defined as papilloma with atypical hyperplasia in the epithelial component. In ADH intraductal papilloma, this proliferation is limited to <3 mm in extension, while in DCIS intraductal papilloma, it extends ≥3 mm. It represents a precursor lesion and needs to be considered as a risk factor for cancer, with a RR of 5.1.^{22,23}

Traditionally, papillary lesions diagnosed by core needle biopsy were surgically resected, as partial lesion assessment through biopsy samples involved the risk of unidentified malignancy. Recently, these lesions have been managed less invasively. There is controversy over the situations when surgical resection is required, particularly in case of a single benign papillary lesion with no atypia.²⁴

DIAGNOSIS

Papillomas may have a clinical or radiological presentation. Papillomas may appear with nipple secretion, which is considered to be pathological if it is unilateral, spontaneous, and affecting one duct only. Associated nipple secretion can be serous or bloody, and the latter results from the friability of the surface epithelium or torsion of the ischemia-causing pedicle. Secretion may

also result from associated ductal ectasis. Larger and more central papillomas may appear as a tangible mass.⁹

Intraductal papilloma might not appear in the mammography. Radiological presentations depend on the type of imaging test. In mammography, larger lesions may appear as a modest mass, calcifications, and/or focal asymmetry. The ultrasound may show a mass, which usually seems to be intraluminal, and may be solid, complex solid/cystic or cystic. These intraductal masses can be associated with a dilated duct, sometimes containing ductal waste. They may occasionally appear only as a dilated duct with no visible mass. The mass tends to be near the nipple and may show flow upon a color Doppler scan. A galactography may show intraductal papilloma as an intraluminal filling defect with a dilated duct leading the mass to sudden ductal section. Magnetic resonance shows linear tubular, hyperintense and retroareolar images in baseline sequences. The hyperintense feature suggests the presence of high-density (blood or protein) content. Following intravenous contrast agent administration, the papilloma is more commonly identified as linear non-mass enhancement, with a more accurate display of lesion extension.⁹

In our case, the ultrasound showed a complex solid-cystic mass mainly involving the external quadrants of the right breast, characterized by a right axillary lymph node of mild cortical symmetrical thickness, possibly as a result of the surface ulceration process. (Figure 2) The mammography identified a voluminous mass involving a large part of the right breast. (Figure 3)

Apart from imaging, a tissue pathological test is necessary to diagnose intraductal papilloma. Tissue radiological and pathological findings need to be consistent for accurate diagnosis.⁴ There are different biopsy methods, including open surgical biopsy (SB), vacuum-assisted biopsy (VAB), and core needle biopsy (CNB).

Initial diagnosis is more commonly performed using core needle biopsy. Core needle biopsy and vacuum-assisted biopsy are preferred over fine needle aspiration, as more representative tissue samples are collected for pathological tests, and they have been associated with a lower risk of underestimation in several studies.¹² A SB is not preferred either, as a surgical approach is required, it is more invasive, and it may cause chronic pain, as well as increased anxiety and depression in patients.²⁵

In our case, all biopsies were negative for atypia, and considering the large volume and inflammatory aspect of the lesion, complete lesion excision was performed for the pathological test. (Figures 1 and 4) For lesions concealed in images, a galactography or ductoscopy has been used.^{11,26} Other papillomas may remain undiagnosed until surgical resection. If the duct can be identified in surgery, a cannula may be introduced using a 0000 lacrimal duct probe, or it may be infiltrated with methylene blue for selective excision of the duct. Alternatively, excision of the central duct may be performed to remove collecting sub-areolar ducts; as most isolated papillomas are located less than 2 cm away from the nipple, this will generally capture the causing lesion and remove any discomforts.

Papillary lesions are a highly heterogenous group of lesions involving different degrees of risks of developing cancer. The main concern is not to be able to diagnose atypical areas that may

coexist if the lesion has not been fully removed. Recent literature reports different underestimation rates after surgical resection of papillary lesions of 0-33%.^{12,24,25,27,28}

Benign papillomas, representing most resected papillary lesions, have a RR of cancer similar to that of proliferative non-papillary lesions with no atypia. According to a meta-analysis conducted in 2013 and minor series, up to 7% of papillary lesions with no atypia upon biopsy are actually carcinomas upon complete surgical excision.^{29,30}

At present, VAB is a more accurate diagnostic test in terms of sensitivity and specificity versus CNB. Several authors show that VAB might become an alternative to an open biopsy given the insignificant rate of underestimation for small lesions.⁸

THERAPY

Traditionally, papillary lesions diagnosed by core needle biopsy were surgically resected due to the risk of unidentified malignancy. Recently, there has been a tendency towards less invasive management of these lesions.

There is controversy over the situations when surgical resection is required, particularly in case of a single benign papillary lesion with no atypia.¹⁴

Papillary lesions of the breast are a clinically, histologically, and biologically heterogeneous group of breast diseases. When a papillary lesion of the breast is diagnosed, the most important question is whether the lesion is benign, precursor, or malignant, and also whether it is invasive or non-invasive. To rule out invasive disease, the presence of myoepithelial cells is very important. By definition, complete absence of a myoepithelial cell layer in the fibrovascular stalks of a papillary lesion would indicate carcinoma. However, the presence of myoepithelial cells does not fully rule out papillary intraductal carcinoma diagnosis.

If a papillary lesion is suspected, CNB is considered as one of the first diagnostic tests to be performed. Available information suggests that the presence of isolated papilloma with no atypia doubles the risk of developing cancer. The risk of ipsilateral cancer is not higher than the risk of contralateral cancer as compared to patients with benign non-papillary disease.^{22,31} The high incidence of unknown neoplasm associated with a papillary lesion or emergence during follow-up warrants complete surgical resection and careful monitoring over time.

Isolated papillomas with no atypia are benign, and excision is considered to be the definitive therapy. Available information suggests that an increased risk of this type of lesions is based on the presence of proliferative epithelial changes with atypia.^{9,22,31,32}

Recent studies evaluating the absolute risk of breast cancer after 10 years, in order to perform risk-stratified screening tests, have shown that intraductal papillomas with atypia are among the three lesions with the highest risk of future cancer (9.7%), together with ADH (13.6%) and lobular neoplasia (8.8%). Therefore, these three categories might benefit from a customized clinical and radiological surveillance approach.^{33,35}

It is widely agreed that symptomatic papillomas are to be surgically resected. In our case, we performed partial mastectomy plus reconstruction mammoplasty, with very good cosmetic results and high patient satisfaction. (Figure 1)

The American Society of Breast Surgeons consensus guidelines recommend excision of papillary lesions with atypia but suggest that the decision over other papillary lesions should be made on an individual basis, with careful monitoring using serial images as an alternative.³⁶ When monitoring is chosen, a diagnostic ultrasound after 6, 12, 18, and 24 months needs to be performed, together with an annual mammography.³⁷

According to the Chinese Society of Breast Surgery guidelines for the management of intraductal papillomas, open surgery is recommended for central intraductal papilloma with nipple secretion, including lobular resection or quadrant resection of the intraductal lesion; an open surgery, CNB, or VAB may be performed for peripheral intraductal papilloma.³⁸ In case of multiple lesions involving the entire breast, a prophylactic mastectomy or subcutaneous mastectomy with or without prosthetic reconstruction may be considered. For central intraductal or peripheral papilloma with ADH via CNB or VAB, treatment should be individual and based on the patient's specific conditions. If the patient has only one lesion and images show that it has been completely removed, follow-up may begin. Open extended resection is advised in case of uncertain complete resection.⁸

According to the III Conference for International Consensus on B3 lesions, complete lesion resection using VAB is acceptable, and radiological follow-up is suggested.³⁹ Even though papillary lesions with or without atypia (such as ADH or classic LN) are classified as B3 lesions, management and biological behavior are totally different in both cases.^{3,8} Pure IPs have a low rate of underestimation (1-9%), while it has been reported that lesions with concomitant atypia have a higher rate of underestimation, as high as 38%.^{3,8} There are several prognostic predictors for these two biologically different lesions, including size >1 cm, symptomatic lesions, peripheral location >5 cm away from the nipple, concomitant calcifications, and multiple lesions.^{8,11,40-43}

Since the last conference for consensus, 47 studies have been published. The rate of underestimation with core needle biopsy for IP with no atypia was just 2,3%.^{3,40-43} On the contrary, IP with atypia (at least ADH, LN) had a significantly higher rate of underestimation, 26.9%. Based on these series, the expert panel recommends therapeutic SB or VAB after diagnosis of IP with no atypia by CNB. If the lesion was fully resected by VAB, it may replace open surgery for most IPs. Vacuum-assisted excision was considered an alternative equivalent to SB; using a 7-9-gauge needle, it can remove about 4 g of tissue, reducing even more the risk of false negatives.⁴⁴ The largest lesions that cannot be completely resected by VAB need surgical excision. Surgical excision is recommended in the form of lumpectomy with full papilloma resection. Subsequent active radiological surveillance is warranted.³⁹

Relevant criteria vary in terms of the importance of each study, which makes it difficult to create an algorithm for the evaluation and treatment of these lesions. In addition, there has been an attempt to develop breast papillary index models in order to help radiologists.⁴⁵

PROGNOSIS

The most common occurrence of papillary disease of the breast is intraductal papilloma. Papillary disease also includes papillomatosis, papillary ductal carcinoma in situ, encapsulated papillary carcinoma, solid papillary carcinoma, and invasive papillary carcinoma. Intraductal papilloma prognosis is generally very good.

The risk of subsequent breast cancer is doubled in patients with IP and no atypia, and 5 to 7 times higher in patients with IP with atypia versus the general population.^{11,40-43,46} Also, they are part of the group of diseases caused by lesions of uncertain malignant potential or B3 lesions, regardless of the presence of cell atypia.^{8,39}

Patients with personal and family history of breast cancer have a significantly higher risk of atypia or carcinoma.^{12,47,48}

The rate of biopsy diagnosis underestimation is high.^{29,49,50} The risk of DCIS synchronically or rarely associated with invasive carcinoma following papilloma diagnosis by a core needle biopsy is basically determined by identification or absence of atypical epithelial proliferation.^{23,32}

The risk of papilloma with no atypia underestimation following a core needle biopsy is 2% to 3%, and the rate for papilloma with atypical epithelial proliferation following a core needle biopsy is 4% to 5%.^{3,23} The risk of recurrence is more closely related to the presence of DCIS in the surrounding breast tissue than to papilloma itself.

Both VAB excision and open surgical biopsy are highly reliable, and even though VAB does not allow histological assessment of resection margins, this less invasive procedure is an undeniable advantage. In the case of VAB primary biopsy (with subsequent titanium clip placement) and clinical-pathological consistency, management can be considered definitive.

Recommended treatment is open surgical excision if the lesion cannot be completely removed via VAB. Subsequently, surveillance is warranted.^{8,9,51} Local recurrence after complete surgical excision is low.⁵²

Complications rarely occur, and when they do, they occur after a biopsy or following surgical excision. Post-procedural complications may include bleeding, infection, pain, fat necrosis, and possible cosmetic deformity of the breast.⁵³

CONCLUSION

Intraductal papilloma is the most common form of papillary breast disease. Intraductal papillomas are varied in terms of size and presentation, ranging from massive lesions to single cystic lesions. Giant intraductal papilloma is uncommon, and in this case, it is the largest to have been reported in literature. VAB resection or open surgical biopsy resection are very reliable. Histology shows papillary proliferation with a central fibrovascular core containing ductal and myoepithelial cells. In case of a VAB primary biopsy and clinical-pathological consistency, management may be considered definitive. Open surgical resection is advised in case of disagreement or if the lesion cannot be completely removed via a VAB. Subsequent surveillance is warranted. Local recurrence is low.

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