To the Editor: A 28-year-old woman complained of a lesion with blood discharging on her right nipple. She noticed a nodule on her right nipple, with blood discharging and crust for 2 months, and the symptom of blood discharging happened frequently for almost a month. Physical examination revealed a nodule 10-mm in diameter, with an opening in the center, erosion and crusting in places, and no lesion in areola [Figure 1a]. Breast palpation failed to reveal any mass, and axillary lymph node examination was negative.

Sonography (Genova Italy, Esaote MyLab™ One/Touch, 20 MHz high-frequency transducer) revealed a well-fined hypoechoic nodule, 10 mm × 9 mm in size, in the inferior part of the nipple [Figure 1b]. Color Doppler study revealed relatively increased blood flow signal in the nodule [Figure 1c]. Histopathology of the lesions showed a well-fined tumor composed of glandular formation in the whole dermis; the glands were lined with apocrine metaplastic epithelium formed by cuboidal cells with basophilic nuclear and eosinophilic cytoplasm. The basal cells were made up of myoepithelial cells. Apocrine secretion could be found in glands [Figure 1d and 1e]. Immunohistochemistry revealed that cuboidal cells were CK5/6(+), myoepithelial cells were p63(+), and tumor cells were Ki-67 (5%+), ER(+), and PR(part+). Nipple adenoma was diagnosed. The lesion was resected, and the patient is being followed up.

Nipple adenoma is a rare and benign breast tumor of the lactiferous ducts that develops in the superficial portion of the nipple. It usually happens among women with an average age of 40 years. In early stage, the lesion is asymptomatic, and hence it is easily overlooked by patients. With the development of the disease, the presenting signs and symptoms can progress to nipple erosion, crusting, pain, itchiness and bloody discharge, making it indistinguishable from the clinical manifestation of Paget’s disease. At a later stage, the nipple has an indurated nodule which makes it indistinguish from other dermatologic or mammary diseases. The course of disease is rather long, from several months to several years.

In our case, noninvasive sonography was first used and it revealed a well-defined hypoechoic nodule in the superficial part of nipple with posterior echo enhancement, and Doppler sonography revealed that the entities were hypervascular, which helped to diagnose nipple adenoma, to confirm the size and depth, and to differentiate from Paget’s disease in which ultrasound image showed an irregular, ill-defined, and hypoechoic lesion.[1,2]

Histological examination is fundamental for the diagnosis. There are three main histological phenotypes of nipple adenoma: (1) Adenosis type: the lesion is in the dermis, has a relatively clear margin, and usually lacks hyperkeratosis in the epidermis. The hyperplasia glandular ducts have two types of cells: glandular epithelium and myoepithelium. (2) Epithelial hyperplasia type: significant florid hyperplasia is present in the epithelia of the collecting ducts and hyperplasia glandular ducts. This hyperplasia is often solid and may have a complex papillary form. It can be accompanied by atypical hyperplasia, necrosis, or mitotic figures. (3) Pseudo-infiltrative type: the lesion has significant pseudo-infiltrative differences from ordinary tissue that are usually located within the lesion or in peripheral areas. These three histological changes exist primarily in a mixed form within the same tumor.[3]

Immunohistochemistry test can also be useful in establishing a differential diagnosis with malignant diseases. In nipple adenoma, the glandular epithelium was diffusely positive for 34betaE12, patchily positive for CK5/6, and negative for p53 and c-erbB-2. The myoepithelium, positive for p63, smooth muscle actin, and calponin, was well preserved and outlining the duct.[4] This helps in differential diagnosis with malignant diseases which were positive for c-erbB-2, p53, and lack of complete myoepithelium.

The treatment of nipple adenoma is a simple resection of the tumor with local anesthetic. If the tumor is completely resected, recurrence rarely happens.[5]

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Conflicts of interest
There are no conflicts of interest.

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**Figure 1:** Clinical picture, sonography, and histopathology of the lesions. A nodule on right nipple with an opening in the center, erosion and crusting in places (a); sonography showed well-defined hypoechoic nodule in the inferior part of the nipple (b); color Doppler revealed increased blood flow signal in the nodule (c); histopathology of the lesions showed a well-fined tumor composed of glandular formation in the whole dermis (d), and apocrine secretion could be found in glands (e).