

## Breast tumor diagnosis of “Nuclear Inverse-polarity Papillary Lesion of Lacking Myoepithelial Cells”

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### Introduction

Preventive oncology is worldwide important matter. Especially breast cancer is world threatening disease. Preventive medicine and the accurate cancer diagnosis is stuttering problems. Here, we present 2 cases of breast tumor. They came to the hospital for further examination and treatment. Radiologically, malignancy could not completely excluded. Then, breast excision was performed. Histologically, both cases revealed papillary neoplastic lesions lined by fibrovascular core and nuclear inverse-polarity without atypia. Loss of myoepithelial cells was observed by HE, p63, and calponin. Previous report indicate CK5/6, ER, p63 and MUC3 are important for distinguishing between papillary lesions according to the differential index. Based on this analysis, our 2 cases had benign lesions. Additionally, the Ki-67 index was <1% in both cases, and no evidence of disease was observed minimum 62 months of follow-up for both cases, despite lack of additional treatment. Here, we newly experimented MUC immunostainings in these cases because MUC immunostaining status is important in breast diseases. We did immunostaining of MUC1,2,4,5A,C,5B and 6. The results are MUC2,4,5A,C and 6 are negative. MUC1 revealed apical strong staining and also MUC5B was completely negative. MUC1 of apical staining is thought to be benign. MUC5B is thought that the staining positivity means early cancer lesion. Hence our staining status also turn out to be benign without myoepithelial cells. In conclusion, MUC immunostaining status also proved “Nuclear inverse-polarity papillary lesion lacking myoepithelial cells” are benign lesions. Someone think this lesion’s name is too long so “Tajima tumor” might be appropriate.

### Discussion

The most major benign papillary lesion in the breast is intraductal papilloma. Intraductal papilloma is divided into two types. One is large duct papilloma (central papilloma). Central papilloma is centrally located and often solitary. And Central papilloma originates from lactiferous sinus or large mammary ducts. The other is small duct papilloma (peripheral papilloma). Peripheral papilloma is peripherally located and often multiple. And peripheral papilloma is involved terminal duct lobular units [1]. Hence, these two types of intraductal papillomas are thought to be different and distinctive lesions. Although both lesions reveal similar histology which is characterized by luminal epithelial cells of papillary proliferation lined by fibrovascular stroma.

### Conclusion

Discriminating between intraductal papilloma and malignant papillary lesion of the breast is sometimes problematic and challenging. In that situation, immunohistochemistry might be a helpful tool. Hence, we have to diagnose the breast papillary lesion including intraductal papilloma attentively, even though it might be difficult case.

### Keywords

Apocrine lesions, Tumors, Breast papillary lesions, Malignant lesions

### Biography

After I graduated Keio University School of Medicine, I was employed as to Department of Pathology at Keio University. I learned pathological anatomy and diagnostic pathology. Then, I belong to Department of Radiology at St. Marianna University School of Medicine to study breast imaging. And I have presented some scientific exhibitions about radio-pathological correlation of the breast. I learned at St. Marianna University Graduate School of Medicine for four years. And after PhD was acquired, I am expert in breast pathology and radiology. Now I am working at National Hospital Organization Shizuoka Medical Center