Nuclear inverse polarity papillary lesions lacking myoepithelial cells: a report of two cases

Shinya Tajima, Ichiro Maeda, Yoshio Aida, Akio Kazama, Akira Endo, Motohiro Chosokabe, Keiko Kishimoto, Koichiro Tsugawa, Masayuki Takagi and **Junki Koike**
St. Marianna University School of Medicine, Japan

Previous reports have described the occurrence of apocrine lesions with loss of myoepithelial cells which were thought to be benign. Here we report 2 cases of "non-apocrine" papillary lesions lacking myoepithelial cells associated with interesting immunohistochemistry results and clinico-pathological features. Both papillary lesions were lined by a fibrovascular core and nuclear inverse polarity without nuclear atypia. Loss of myoepithelial cells was observed by hematoxylin-eosin, Calponin, and p63 staining. Some reports have indicated that high-molecular-weight cytokeratin 5/6 and estrogen receptor immunostainings are important for differentiating benign versus malignant lesions. Moreover, p63 and MUC3 are important for distinguishing between papillary lesions according to the differential index (based on the Allred score) of ([ER total score] + [MUC3 total score])/([CK5/6 total score] + [p63 total score] + 1). Based on this analysis, our 2 cases had benign lesions. However, based on immunopositivity for the cell-cycle marker Cyclin-D1, one case was negative, and the other case was about 70% weak positive. Additionally, the Ki-67 index was <1% in both cases, and no evidence of disease was observed after at most 64 months of follow-up for both cases, despite a lack of additional treatment. Thus, we propose that lack of myoepithelial cells in papillary lesions do not necessarily indicate malignancy and that the present cases had at the most tumor of uncertain malignant potential.

Speaker Biography

Shinya Tajima graduated Keio University School of Medicine, then he was employed as a staff to Department of Pathology at Keio University School of Medicine. There he learned pathological anatomy and diagnostic pathology. After two years, he joined Department of Radiology at St. Marianna University School of Medicine to study breast imaging. And he have presented some scientific exhibitions about radio-pathological correlation of the breast in domestic and international congress. Furthermore, he learned at St. Marianna University Graduate School of Medicine for 4 years. And after PhD of radiolo-pathology was acquired, now he is doing some research about the comparison of pathologic features and radiologic imaging findings and also using pathological knowledge, he is research about cancer stem cell and circulating tumor cells as assistant professor of St. Marianna University School of Medicine Department of Pathology and Radiology.

e: stajima0829@gmail.com

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