Infrequent Immunohistochemical Expression of Napsin A in Endometrial Carcinomas

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Abstract **Author Information**

Introduction: Many studies described napsin A as a specific diagnostic marker that aids in differentiating lung adenocarcinomas from other respiratory tumors. This study describes the expression phenotype of napsin A in endometrial neoplasms, it investigates the relationship between this expression profile and the clinicopathologic parameters, and assess its utilization as an independent predictive marker.

Methods: A total of 76 cases of previously diagnosed endometrial carcinoma (including 53 endometrioid adenocarcinomas, 6 endometrioid adenocarcinomas with squamous differentiation, 9 serous adenocarcinomas, 6 clear cell adenocarcinomas, and 2 malignant mixed mullerian tumors) and 30 tissue samples of noncancerous endometrium (including 16 proliferative endometriums, 10 secretory endometriums and 4 endometrial polyps) were retrieved from the archives of Pathology Department at King Abdulaziz University, Jeddah, Saudi Arabia. For napsin A detection, tissue microarrays and immunostaining were used.

Results: A total number of 12 (15.78%) cases were positive for napsin A immunostaining. Brown granular cytoplasmic expression of napsin A was detected in 9.4% of endometrioid adenocarcinomas, 16.7% of endometrioid adenocarcinomas with squamous differentiation, 22.2% of papillary serous endometrial carcinomas, and 66.7% of clear cell carcinomas. Three (10%) control cases showed similar granular cytoplasmic expression. Positive napsin A immunostaining was more frequent in clear cell carcinoma, and there is a significant association between positive napsin A immunostaining and clear cell carcinoma (*P*-value=0.007). Significant associations have been found also between napsin A expression and older ages (above 60 y) and higher stage (IVB), the *P*-values of which were 0.035 and 0.043, respectively, but not with the tumor recurrence or survival rate.

Conclusions: Although napsin A is infrequently expressed in endometrial carcinomas, positive results of napsin A immunostaining in endometrial neoplasms might support the diagnosis of clear cell carcinoma when the pathologic differential diagnosis includes other histologic subtypes.

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