

LETTER TO THE EDITOR

Prominin-1 and Its Role in Tumor Progression and Assessment of Clinical Prognosis in Systemic Malignancies

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To the Editor:

The recent article by Di Bonito et al. [1] provided for highly stimulating reading. Prominin-1 may influence tumor progression and clinical prognosis in a number of other systemic tumors. A similar relationship is seen in colorectal cancers. In fact, prominin-1 exerts significant influence on tumor progression in colonic malignancies. Nearly, 36% of all malignant colonic masses are positive for prominin-1 expression [2]. Decreased “overall survival” is seen in patients with up-regulated prominin-1 levels. Accentuated prominin-1 expression is associated with accentuated tumor invasiveness. In general, “microsatellite instability-high” tumors express lower levels of prominin-1 in contrast to “microsatellite stable” colorectal tumors [3]. Not surprisingly, only 9% of colorectal tumors with a good prognosis are positive for prominin-1. In contrast, nearly 52% of colorectal malignancies that exhibit a poor clinical outcome are positive for prominin-1. Lymph node metastasis is also more prominent in tumors positive for prominin-1. Interestingly, the expression of prominin-1 by malignant colonic tissue is decreased following preoperative treatment with nonsteroidal anti-inflammatory agents [4].

Prominin-1 expression also plays a role in tumor progression in prostatic malignancies. For instance, tumor cells that are positive for prominin-1 expression tend to proliferate at a significantly more accentuated rate in comparison to prominin-1 negative cancer cells [5,6]. Not surprisingly, tumor cells in the G-2 phase are primarily composed of prominin-1 positive cells. A similar association is seen in ovarian malignancies. Nearly 31% of all ovarian cancers are positive for prominin-1 expression. A poor clinical prognosis is seen in patients

with ovarian tumors with accentuated prominin-1 expression as is reflected in the shorter “disease-free survival” times noted in these patients [7].

The above examples illustrate the significant role that prominin-1 plays in tumor progression and its potential use as a significant prognostic maker.

CONFLICT OF INTEREST

The author declares that he has no competing interests.

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