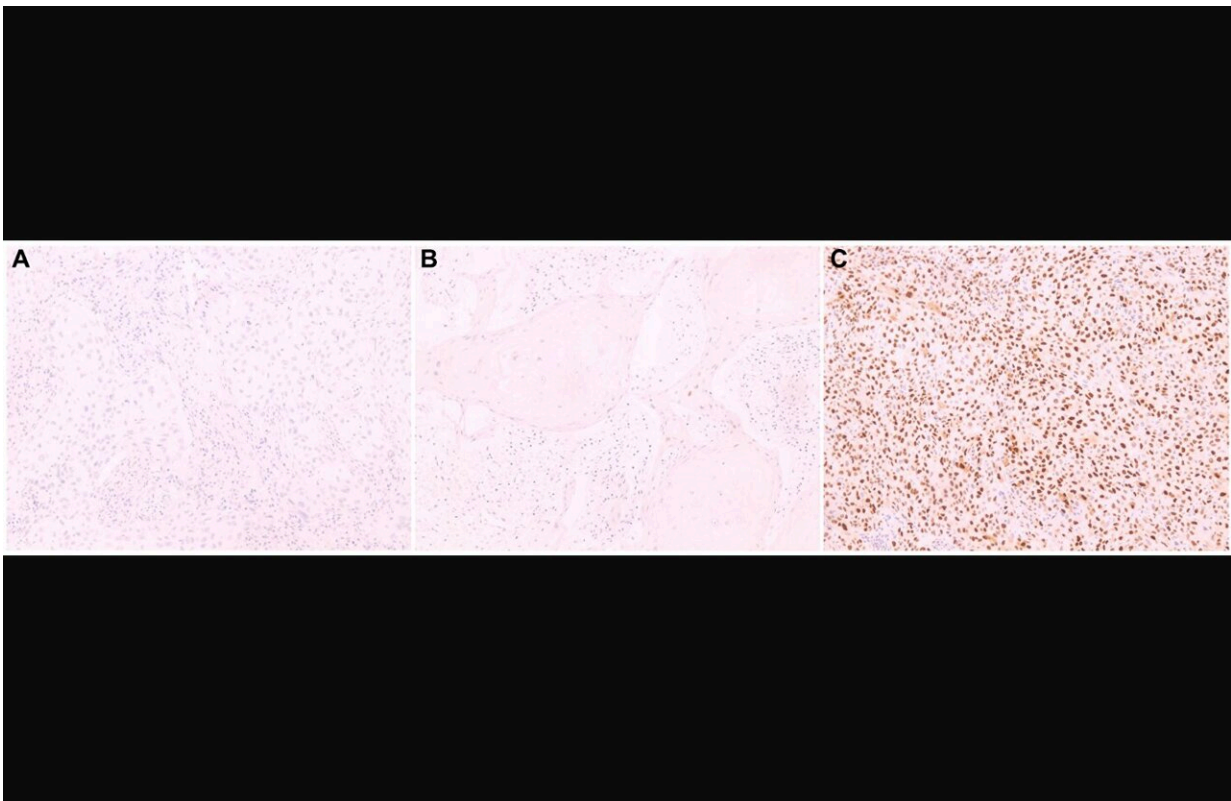


Cyclin D1 expression may be a biomarker for penile cancer

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Cyclin D1 protein expression by immunohistochemistry in histological sections.
Credit: *Oncotarget* (2024). DOI: 10.18632/oncotarget.28584

A new research paper titled "Cyclin D1 expression in penile cancer" has been [published](#) in *Oncotarget*.

In this new study, researchers analyzed the expression profile of cyclin D1 in patients with [penile cancer](#) (PC), and to determine possible correlations with clinical and histopathological features.

"Regarding PC, however, few studies have assessed the role of cyclin D1, reinforcing the necessity for initiatives that aim to investigate its actual role in the pathophysiology of this disease. As such, the present study aimed to characterize the expression of cyclin D1 in patients with PC, and to determine possible correlations with the clinical and histopathological features of the disease," write the researchers.

A survey was conducted with 100 [patients](#) diagnosed with PC, who were treated at two reference hospitals in São Luís, Maranhão, Brazil, between 2013 and 2017. A review of clinical, epidemiological, and histopathological data was performed, human papillomavirus (HPV) DNA was detected using [polymerase chain reaction](#) (PCR), and cyclin D1 expression analysis was performed using immunohistochemical techniques.

The data revealed that the absence of cyclin D1 expression was significantly associated with HPV-positive histological subtypes ($p = 0.001$), while its expression was associated with high-grade tumors ($p = 0.014$), histological subtype ($p = 0.001$), presence of sarcomatoid transformation ($p = 0.04$), and perineural invasion ($p = 0.023$). Patients with cyclin D1 expression exhibited lower disease-free survival compared to the cyclin D1-negative group, although the difference was not statistically significant.

"The results suggest that cyclin D1 may be a potential biomarker for PC, especially for poorer prognosis," the researchers conclude.

More information: Wesliany Everton Duarte et al, Cyclin D1 expression in penile cancer, *Oncotarget* (2024). [DOI: 10.18632/oncotarget.28584](https://doi.org/10.18632/oncotarget.28584)

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