## CD276

The high expression across multiple tumor types and restricted expression in normal tissues make B7-H3 an attractive target for immunotherapy. So far, little is known about the clinical significance of B7-H3 expression in meningiomas. Thus, Deng et al. conducted a study to address this issue in a cohort of 242 patients from a single institution.

Expression profiles of immune checkpoint proteins (PD-L1, B7-H3, LAG3, PD-1 and VISTA) were explored by immunohistochemistry (IHC) in a meningioma test-cohort (n = 8). The roles of B7-H3 expression was further assessed in an expanded patient cohort (n = 234) using immunohistochemical tissue microarray analysis.

B7-H3 expression was significantly greater than all immune checkpoint proteins studied in tested cohort. B7-H3 was detected with different degrees in all meningioma specimens, predominantly on tumor cell membranes and in cytoplasm. The tumors were classified as B7-H3 high or low group pending on IHC histoscore (median histoscore = 111.06; range, 7.313-212.008). B7-H3 expression was statistically correlated with patient gender (p = .0297), tumor histopathological subtypes (p = .0262) and radiotherapy after surgery (p = .0028). However, no significant differences were observed in patient age, tumor location, grade and extent of resection between these two groups. Similarly, there was no significant difference in progression free survival (PFS) and overall survival (OS) between patients of B7-H3 high or low group.

The study indicates variable expression and clinical role of B7-H3 in meningiomas, suggesting its potential as an immunotherapeutic target in the future  $^{1}$ .

## 1)

Deng J, Ma M, Wang D, Zhu H, Hua L, Sun S, Chen H, Cheng H, Qian ZR, Xie Q, Zhang T, Gong Y. Expression and clinical significance of immune checkpoint regulator B7-H3 (CD276) in human meningioma. World Neurosurg. 2019 Oct 16. pii: S1878-8750(19)32659-2. doi: 10.1016/j.wneu.2019.10.044. [Epub ahead of print] PubMed PMID: 31629137.

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