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LETTER TO EDITOR

POSTN: a Potential Therapeutic Target in the Treatment of Gastric Cancer?

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Dear Editor,

We read with great pleasure and interest Lu and colleagues' article "Increased Expression of POSTN Predicts Poor Prognosis: a Potential Therapeutic Target for Gastric Cancer".[1] In this study, they showed that periostin (POSTN) expression in gastric cancer (GC) was significantly higher than that in normal gastric tissues. They further revealed that high POSTN expression in GC was significantly related to poor prognostic features, including greater tumor extent, worse histological type, and advanced histological grade. Their results established and clarified that POSTN plays an important role in the progression and prognosis of GC, suggesting POSTN might serve as a therapeutic target for treatment of GC. Interestingly, a study performed by Zhong et al.[2] showed that overexpression of POSTN promoted not only the metastasis of GC, but also aggravated cancer behaviors. These results indicated that POSTN downregulation or inhibition may be a candidate therapy for GC in the future. However, some potential concerns need to be carefully considered.

One recent study uncovered that intestinal-type GC patients with high POSTN levels had both a favorable survival and lesser lymph node metastasis, indicating that POSTN is a tumor suppressor.[3] Moreover, Lv et al.[4] showed that restoration of POSTN expression in GC cells dramatically suppressed cell growth and invasiveness through stabilizing p53 and E-cadherin proteins via the Rb/E2F1/p14ARF/Mdm2 signaling pathway. Along this line, POSTN plays a dual role in GC. Additionally, Kim et al.[5] observed that downregulation of POSTN expression was associated with higher tumor grade and stage in bladder cancers, suggesting that POSTN plays a role as a tumor suppressor during progression of the bladder cancer from low-grade to high-grade cancers. For clinical application, the desired approach is to modulate POSTN expression to treat GC without inducing unwanted side effects in other organs. Thus, it would be interesting to know whether the inhibition of POSTN is safe in treating GC.

In summary, the work by Lu et al.[1] demonstrated that POSTN blockade functions to inhibit tumor growth in GC. The findings of the presented studies lay basis for future research and provide a novel treatment target for clinical practice. Further studies on examination of the clinical effects of POSTN silencing are certainly warranted. We hope that they will find our queries of interest for further experimental research on the field.

Declarations

Conflict of Interest The authors declare no competing interests.

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