



ASO AUTHOR REFLECTIONS

ASO Author Reflections: COL8A1 Regulates Esophageal Squamous Carcinoma

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PAST

Esophageal cancer has the sixth highest cancer mortality in the world. A majority of esophageal adenocarcinomas occur in developed countries, and esophageal squamous carcinomas (ESCCs) predominate in low-income countries, especially in China, where 90% are squamous carcinomas.¹ The 5-year mortality rate of ESCCs is 30–40%, and the current clinical treatment is mainly based on radiotherapy and chemotherapy.² Small molecule drugs have been rapidly developed in recent years, but they are less selective for ESCCs.

PRESENT

COL8A1 was screened by tissue microarrays as a significantly highly expressed molecule in ESCC tissues, even though it was a nonindependent factor. However, it was found through cell and animal experiments that COL8A1 could regulate the proliferation and invasion of ESCCs through PI3K/AKT pathway activation.³ Resultingly, we believe that COL8A1 is a tumor marker or a key regulator of pathogenesis in ESCCs that deserves further investigation.

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FUTURE

COL8A1 (collagen type VIII alpha 1 chain), a secreted protein, is a promising tumor-promoting molecule whose role in gastrointestinal digestive system tumors has been partially reported,^{4,5} but not in ESCC. COL8A1 is predominantly distributed in the interstitial space of the cells, so COL8A1-mediated invasion of ESCC may be mediated by COL8A1 through the regulating intercellular communication, EMT transformation, or cell junction effects. Therefore, COL8A1-mediated tumor invasion and migration is a future research direction.

DISCLOSURE There is no conflict of interest to declare.

REFERENCES

1. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin*. 2018;68(6):394–424. <https://doi.org/10.3322/caac.21492>.
2. Niu C, Liu Y, Wang J, et al. Risk factors for esophageal squamous cell carcinoma and its histological precursor lesions in China: a multicenter cross-sectional study. *BMC Cancer*. 2021;21(1):1034. <https://doi.org/10.1186/s12885-021-08764-x>.
3. Jing H, Pengbo L, Yanggang D, Zhe Ch, Yeting L, Xue Ch, Senxiang Y. COL8A1 Regulates Esophageal Squamous Carcinoma Proliferation and Invasion through PI3K/AKT Pathway. *Ann Surg Oncol*. 2023. <https://doi.org/10.1245/s10434-023-14370-x>.
4. Yan B, Liu L, Zhao L, et al. Tumor and stroma COL8A1 secretion induces autocrine and paracrine progression signaling in pancreatic ductal adenocarcinoma. *Matrix Biol*. 2022;114:84–107. <https://doi.org/10.1016/j.matbio.2022.11.002>.
5. Zhang L, Jiang X, Li Y, et al. Clinical correlation of Wnt2 and COL8A1 with colon adenocarcinoma prognosis. *Front Oncol*. 2020;10:1504. <https://doi.org/10.3389/fonc.2020.01504>.

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