Boosting the effects of a particular microRNA may benefit patients with cervical cancer

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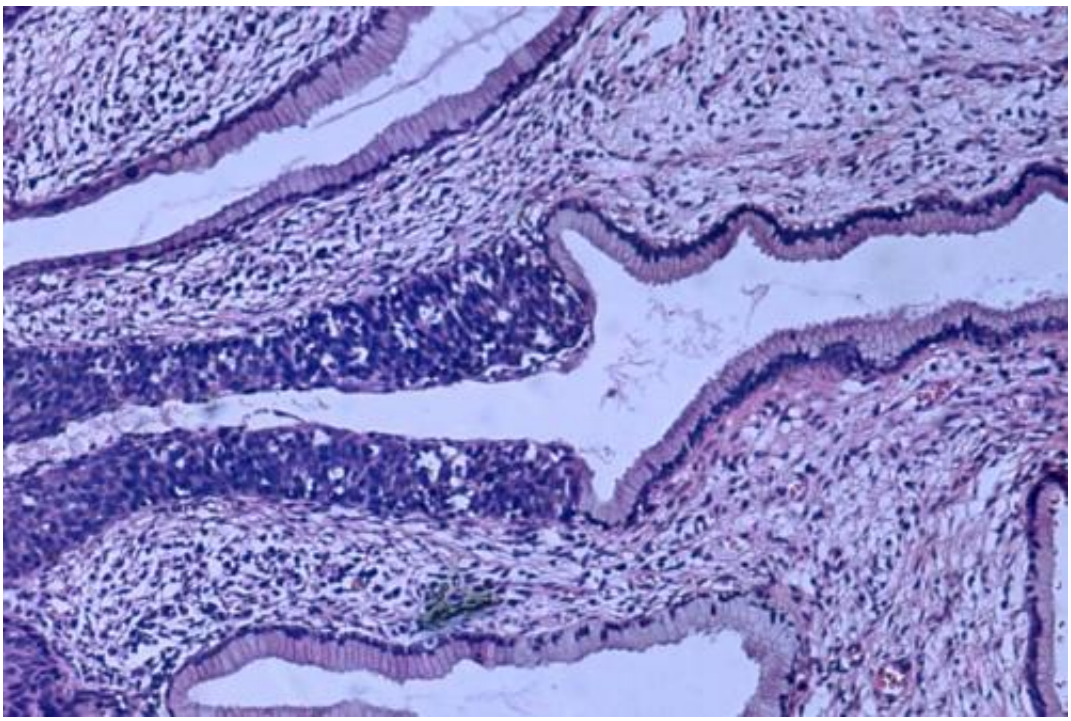

High grade dysplasia (carcinoma in situ) in the uterine cervix. The abnormal epithelium is extending into a mucus gland to the left of centre. This disease can progress to invasive cancer (squamous cell carcinoma) of the cervix. Credit: Haymanj/public domain

Dysregulation of microRNAs, which are molecules involved in controlling gene expression, can promote tumor formation and

progression. A study in *The FASEB Journal* found that the miR-145 microRNA can suppress the growth of cervical cancer cells.

miR-145 was expressed at lower than normal levels in human cervical cancer cells, and lower levels correlated with more advanced clinical stages of cervical cancer in patients.

Experiments in cells and mice revealed the mechanisms behind miR-145 effects and pointed to potential targets that could be manipulated to benefit patients with cervical cancer.

"Cervical cancer is the fourth leading cause of cancer-related death in women worldwide, and microRNA dysregulation plays an important role in its pathogenesis," said co–corresponding author Kun Yang, Ph.D., of The Fourth Military Medical University, in China. "This study explored the potential mechanism of miR-145 in cervical cancer, suggesting that targeting miR-145 is expected to be an effective strategy for cervical cancer treatment."

More information: Chenchen Hu et al, miR-145 inhibits aerobic glycolysis and cell proliferation of cervical cancer by acting on MYC, *The FASEB Journal* (2023). DOI: 10.1096/fj.202201189RR

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