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LncRNA NEAT1/MiR-103a-3p/ATF7 Axis Facilitates Cervical Cancer Cell Viabilities

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ABSTRACT Long noncoding RNAs (lncRNAs) participate in the development of cervical cancer (CC). Hence, impacts of lncRNA NEAT1 on CC cell progression were explored. LncRNA NEAT1, miR-103a-3p and ATF7 RNA expressions were examined using RT-qPCR. CC cell viabilities were detected by CCK-8. ENCORI was used to predict underlying binding spots of miR-103a-3p with lncRNA NEAT1 or ATF7. Fluorescence was examined using a luciferase reporter test. Knockdown of lncRNA NEAT1 was suppressed in Hela cells and inhibited cell viabilities while lncRNA NEAT1 overexpression was upregulated in SiHa cells with facilitating cell viabilities. MiR-103a-3p was confirmed to be targeted and sponged by lncRNA NEAT1. Thereafter, ATF7 was targeted and negatively modulated by miR-103a-3p, which has positive interaction with lncRNA NEAT1. Moreover, upregulated miR-103a-3p suppressed CC cell viabilities while ATF7 upregulation facilitated CC cell viabilities. lncRNA NEAT1 upregulated ATF7 through sponging miR-103a-3p, resulting in accelerated CC cell viabilities.