Anticancer effect of fluoxetine on stress-induced depression mice bearing Lewis lung cancer

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Objective: To observe if fluoxetine has a potency to inhibit the progression of Lewis lung cancer in chronic stress-induced depression mice bearing Lewis lung cancer. Methods: All C57 mice were grouped as: (A) blank control, (B) tumor-bearing control, (C) depression control, (D) depression+tumor-bearing control, (E) tumor-bearing + fluoxetine treatment, and (F) depression + tumor-bearing + fluoxetine treatment. Mice in groups C, D and F were treated by chronic unexpected mild stress for 8 weeks to induce depression. Mice in other groups were not treated by any stress. Mice in groups B, D, and F were inoculated LLC lung cancer cells. The depression model was confirmed with behavioral analysis and sucrose preference test. The tumor tissue volume was measured at the end of 14 days treatment of fluoxetine. Results: Compared with mice in group D, the tumor weight and volume in mice in group F were decreased with fluoxetine treatment.