Abstract

Anticarcinogenic activity of astaxanthin-containing egg yolk (designate AEY) was investigated for mouse ascites carcinogenesis induced by mouse Sarcoma-180(S-180) cells. Female ICR mice (8 mice/treatment, 7–8 weeks of age, 25±1g) were injected, i.p. with S-180 cells (1×10⁶ cell/ml PBS). Two days later, each mouse was given 0.1ml PBS containing AEY (10, 25 or 50µg/g body weight) or control egg yolk (CEY; 50µg/g body weight) every other day for 7 times. Control mice were only given 0.1ml S-180 cells and 0.1ml PBS. Mice treated with 25µg/g body weight of AEY showed 24.8 days of life, which was equivalent to 138% of control mice’s life (18.0 days). Based on dose-dependant experiment of AEY, mice treated with 10µg/g body weight showed slightly longer life (19.4 days) relative to mice treated with control mice, and mice treated with 50µg/g body weight exhibited 21.9 days of life. Mice treated with any dose of AEY exhibited longer life than mice with CEY 50µg/g body weight. Body weight of mice treated with AEY was reduced relative to that of control mice or CEY–treated mice. These results suggest that AEY inhibits the carcinogenesis of mouse ascites induced by S-180 cells.

Key words: astaxanthin-containing egg yolk, Sarcoma-180, ascites carcinogenesis

Language: Korean