Morin Protects Against Cachexia Effects in Walker 256 Tumor-Bearing Rats and Promotes Tumor Regression

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The flavonoid morin displays a variety of biological actions such as anti-inflammatory, antioxidant and chemopreventive activities. Cachexia is one of the most frequent effects of cancer malignancy and is associated with more than 80% of cancer deaths. The Walker 256 tumor is used as an experimental model to establish cancer cachexia in infected animals. This condition is directly related to the total weight loss and depletion of host reserves of adipose tissue and skeletal muscle. In this work we describe an *in vivo* morin therapeutic treatment of W256 tumor-bearing rats. W256 tumor-bearing rats were randomly assigned to 5 different groups (n=10): tumor control group (TC), and four other groups treated with different daily i.p. morin doses (10, 15, 25 and 35 mg/Kg), for 50 days. Survival, dose-response (ED_{50}) and tumor regression curves were determined in each case. Our results showed that 15 mg/kg morin was the most effective dose and caused complete tumor regression in 4 animals. In the other animals of this group morin inhibited about 50% the tumor growth, when compared with control animals. We also observed that rats treated with 10 and 15 mg/kg morin showed significant decrease in cachexia symptoms. This work led us to consider morin as an anticarcinogenic agent and protector against cachexia effects.

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