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Morin, a flavonoid, prevents lysosomal damage in experimental myocardial ischemic rats

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The present study was designed to investigate the preventive effect of morin on lysosomal enzymes in isoproterenol (ISO) treated myocardial infarcted rats. Myocardial ischemia was induced by subcutaneous injection of ISO hydrochloride (85 mg/kg BW, twice at an interval of 24 h) for two consecutive days. The morin (40 mg/kg BW) was administered daily for 30 days and subsequently two doses of ISO administered on 29th and 30th days. The activities of lysosomal enzymes β -glucuronidase, β -N-acetylglucosaminidase, β -galactosidase, cathepsin-B and D were increased significantly ($P < 0.05$) in the serum and heart of ISO-induced cardiotoxic rats. The pretreatment of morin and two doses ISO treated rats exhibited significant ($P < 0.05$) reduction of these lysosomal enzymes activities. Morin protects the lysosomal membrane damage against ISO-induced cardiac damage as evidenced by reduced activities of these lysosomal enzymes.

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