Effects of ethanolic extract of *Portulaca oleracea* on antioxidant indices of reproductive system in aging model induced by D-galactose in female mice

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Introduction: D-galactose (D-gal) causes to aging via generate excess free radicals. *Portulaca oleracea L or Purslane (PO)* may have a protective effect against oxidative stress. *Purslane* ethanolic extract effect was evaluated on antioxidant indices reproductive system of aging model induced by D-galactose in female mice.
Methods: 72 female NMRI mice (25-35g) were randomly divided into, 6groups: 1-control, 2-PO (200 mg/kg, intragastric gavage, daily for last 21 days), 3-D-gal (500 mg/kg, sc, 45days), 4-D-gal+PO, 5-Aging, 6-Aging+PO. Antioxidant and malondialdehyde (MDA) level of ovaries and uterus were measured.
Result: MDA increased ($p<0.01$) in D-gal group compared to control group. Catalase (CAT) and superoxide dismutase (SOD) decreased ($p<0.01$) in D-gal and Aging groups in compared with control group. MDA decreased ($P<0.05$) in D-gal+PO and Aging+PO groups compared to D-gal and aging groups. SOD and CAT increased in D-gal+PO and Aging+PO groups ($p<0.05$) compared to D-gal and Aging groups.
Conclusion: D-gal can induce aging alternations in female reproductive system. *Purslane* ameliorated, alternations induced by D-gal.

Keywords: Aging; D-galactose; *Portulaca oleracea L (Purslane)*; Oxidative stress; Antioxidant enzymes