curve (AUC0) by 1.7-fold ($p < 0.001$), the peak plasma concentration by 1.5-fold ($p < 0.001$) and the half-life of oxycodone by 1.2-fold ($p < 0.001$) as compared to the water. Grapefruit juice inhibited the CYP3A4-mediated first-pass metabolism of oxycodone, decreased the formation of noroxycodone and noroxymorphone and increased that of oxymorphone.(Tuija H. Nieminen,*et al.*. 2010).

Liqurice Extract supplementation can improve the physical quality of fresh meat, the result obtained when a Fifty-four-month-old Tan male sheep were randomly allocated among five dietary groups with Liqurice extarct supplementation at levels of 0 mg/kg, 1000 mg/kg, 2000 mg/kg, 3000 mg/kg and 4000 mg/kg feed. The results showed that supplementation with Liqurice extract decreased ($P < 0.05$) temperature, drip loss, metmyoglobin (MetMb) concentration and percentage, whereas it increased ($P < 0.05$) myoglobin (Mb) concentration. As aging progressed after postmortem, temperature, drip loss and Mb concentration decreased ($P < 0.05$), but MetMb concentration and percentage increased ($P < 0.05$). (Yuwei Zhang, *et al.*. 2013).

The effect of oral administration of a water freeze-dried extract of liquorice showed to suppress the adrenal–pituitary axis, accompanied by stimulation of renin production from the kidney in a dose dependent manner, in rats on the plasma concentration of cortisol, adrenocorticotrophic hormone (ACTH), aldosterone, renin, sodium (Na) and potassium (K). The results indicated that treatment induced dose-dependent and mostly significant decreases in the concentration of cortisol, ACTH, aldosterone and K. There were concomitant dose-dependent increases in the concentrations of renin and Na. (A.A. Al-Qarawi, *et al.*. 2002).

Concomitant take of Liquorice and Cyclosporine (CsA), an immunosuppressant, leads to significantly reduced the oral bioavailability of CsA, this due Mechanism studies