4.1 Conclusion

A new simple, rapid and sensitive method for validation and determination of candesartan in the presence of each juices(pomegranate, liquorice and orange) has been done by using High Performance Liquid Chromatography–Mass Spectrometry (HPLC-MS/MS). Plasma candesartan level was affected by the administration of pomegranate to a greater extent than that with orange or Liquorice. The reduction in plasma candesartan level when in pomegranate pre-fed group was reduced to the half comparing to candesartan alone drug use. Orange or liquorice consumption almost have no effect on plasma level of candesartan.

The difference between Cmax (single administration vs. combination with orange), (single administration vs. combination with liquorices) is insignificant, and the difference in AUC is insignificant as well ($P>0.05$). The difference between Cmax (single administration vs. combination with pomegranate) is insignificant too, never the less the difference in AUC is significant ($P<0.05$).

we think according to our result that pomegranate juice might affect the intestinal metabolic system which resulted in beverage-drug interactions. Thus, the decrease in the AUC of candesartan by pomegranate juice could be due to the induction of enteric p-glycoprotien activity and/or due alteration in the intestinal uptake transporters system.

An interesting observation was the difference in T max between rats and humans, candesartan maximum concentration where reached after 30min (½ hr) in rats compared to 3-4 hr's in human. However, it is difficult to extrapolate our results, which were obtained in rats, to humans. Quantitative evaluation of pomegranate-drug