

1.8 Aim and objectives of the study

1.8.1 Aim

The aim of this study was to evaluate the effect of GlcN on PRN concentration levels in rats and to investigate whether there is a possible drug-drug interaction. PRN-GlcN drug interaction was compared with the known interactions of cimetidine and rifampin with PRN.

1.8.2 Objectives

The two main practical objectives of the current study were; to define the doses of GlcN that can affect PRN BA *in vivo* and *in situ* as well as PRN concentration levels *in vitro* and to uncover the mechanism by which GlcN affects PRN serum concentration. In order to achieve these objectives, a validated HPLC method of PRN in rat serum and Krebs buffer was developed. Later, several *in vivo*, *in situ* and *in vitro* tests were conducted. Finally, this work might reveal whether PRN dose adjustment should be necessary with GlcN administration in patients with OA and RA by determining the effect of GlcN on PRN BA. Consequently, recommend whether health care professionals should be aware of such PRN dose adjustment.