



Effects of Different Disintegrating Agents on Naproxen Sodium Formulations Prepared by Direct Compression Method

Umair LATIF¹, Fakhshena ANJUM^{2*} & Nighat RAZVI¹

¹ Department of Pharmaceutics, Faculty of Pharmacy, University of Karachi, Pakistan

² Dow College of Pharmacy, Dow University of Health Sciences, Karachi, Pakistan

SUMMARY. Disintegrating agents are substances routinely included in tablets formulation. Traditionally starch has been the disintegrant of choice but super disintegrants like Acdisol (cross carmellose sodium), Primojel (sodium starch glycolate) and Cros pvp (cross polyvinyl pyrrolidone) can also be used at lower levels than starch producing much better results. The purpose of present study was to investigate the effects of these various disintegrants included in Naproxen sodium 550 mg tablets, an effective non steroidal anti inflammatory drug (NSAID), prepared by direct compression method. Four formulations were prepared with these disintegrants and also with corn starch using same proportions. The tablets were then evaluated for various tests like hardness, thickness, disintegration etc. The results revealed that the tablets having super disintegrants had less disintegration time and gave rapid *in vitro* dissolution as compared to the conventional corn starch. The drug content of all the formulations was within acceptable limits of USP. This work also helps in understanding the effects of disintegrants on drug release profile since rate of dissolution is greatly affected by disintegrants which in turn affects bioavailability of drugs. It is therefore concluded that Naproxen sodium 550 mg tablets can be prepared by direct compression method at lower costs with one of the super disintegrators, having potential for rapid absorption, improved bioavailability and efficacy.

KEY WORDS: Direct compression, Disintegrating agents, Naproxen sodium.

* Author to whom correspondence should be addressed. E-mail: fakhshena_a@yahoo.com