REVIEW OF LITERATURE

Kuchekar BS et al. prepared (2004), Mouth dissolving tablets of salbutamol sulphate: a novel drug delivery system. The tablets were prepared using sublimable ingredients. Selection of the filler also had an important role in deciding the disintegration time. Amongst all, the formulation containing microcrystalline cellulose and ammonium bicarbonate showed the least disintegration time of 5 s.

Gohel M et al (2004), formulated the mouth dissolve tablets of nimesulide. The purpose of this research was to develop mouth dissolve tablets of nimesulide. Granules containing nimesulide, camphor, crospovidone, and lactose were prepared by wet granulation technique Sublimation of camphor from tablets resulted in superior tablets as compared with the tablets prepared from granules that were exposed to vacuum.

Perissutti B et al (2003), formulated the carbamazepine fast-release tablets prepared by melt granulation technique. This work describes a new approach to prepare a fast-release dosage form for carbamazepine (CBZ), involving the use of melt granulation process in high shear mixer for the production of tablets. In particular, the granules containing CBZ were prepared using polyethylene glycol (PEG) 4000 as a melting binder and lactose monohydrate as a hydrophilic filler. The extragranular addition of a small amount of crospovidone gave rise to a further amelioration of the disintegration and dissolution performances.

Sharma S et al (2008), studied Formulation and Characterization of fast dissolving tablet of promethazine theoclate. The tablets were prepared by directcompression method after incorporating superdisintegrants Ac-Di-Sol, Sodium Starch Glycolate (SSG), and Crospovidone in different concentrations. Tablets containing Ac-Di-Sol showed superior organoleptic properties, along with excellent in vivo and in vitro dispersion time and drug release, as compared to other formulations.

Amin P et al (2006), developed Indion 414, an ion exchange resin, as a new superdisintegrant for pharmaceutical dosage forms. Indion 414 is a pharmaceutical grade weak acid cation exchange resin. Model drugs belonging to various classes were taste masked and formulated into palatable mouth dissolve tablets. Indion 414 exhibited very good superdisintegrant action.
resulting in a cost-effective formulation. Their use can be extended to various other fast disintegrating dosage forms\textsuperscript{29}.

Bolhuis G K et al(1997), demonstrated that the dissolution from capsules and tablets of poorly soluble, hydrophobic drugs can be strongly improved by solid deposition of the drug upon hydrophilic, strongly swelling carriers like the super disintegrants sodium starch glycolate and croscarmellose sodium. It was found, that granules containing a too high concentration of the super disintegrant slow down the drug release from tablets\textsuperscript{30}.

Mohapatra A et al(2008), development and evaluated of patient friendly dosage form of metformin. In this study, orally disintegrating tablets were prepared using direct compression and wet granulation. First the tablets of metformin were prepared using starch RX 1500 and microcrystalline cellulose by direct compression. The optimized batches prepared by direct compression and wet granulation showed 85% drug release at 4 min and 8 min, respectively\textsuperscript{31}.

Jacob S et al(2007), have studied Novel co-processed excipients of mannitol and microcrystalline cellulose for preparing fast dissolving tablets of glipizide. Co-processed particles of microcrystalline cellulose and mannitol were fabricated by spray drying technique to be used as a direct compression excipient in fast dissolving tablet formulation. The results showed that improved fast dissolving tablets can be prepared by the co-processed mixture of microcrystalline cellulose and mannitol\textsuperscript{32}.

Patel DM et al(2008), developed optimization of fast dissolving etoricoxib tablets prepared by sublimation technique. Granules containing etoricoxib, menthol, crospovidone, aspartame and mannitol were prepared by wet granulation technique. . from the results it was concluded that fast dissolving tablets with improved etoricoxib dissolution could be prepared by sublimation of tablets containing suitable sugliming agent\textsuperscript{33}.

Shirwaikar et al(2004), prepared fast disintegration tablets of Atenolol by dry granulation method. Atenolol was formulated as fast disintegrating tablet using three superdisintegrates like Ac-Di-Sol, crospovodone and explotab. Ac-Di-Sol provide to be the best among the three and show satisfactory result at 3 Kg/cm2 hardness. At 8% w/w concentration level it showed the least disintegration time of 31±2 s and the highest release of more than 98% of the drug in 10 min\textsuperscript{34}. 

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Sheetal et al(2007), prepared fast dissolving tablets of oxcabazepine by wet granulation method. Here formulation was prepared by using Avicel PH 102 as a diluents Ac-Di-Sol as a superdisintegrant and starch as a diluents. An effective, stable and pleasat tasting formulation containing 12% Ac-Di-Sol, 25% Avicel PH 102 and 8.5% starch was found to have a good hardness of 4-4.5 Kg/cm2, disintegration time 28±5 s and drug release of not less than 90% within 30 min35.

Sheen et al(1995), studied the formulation of poorly water soluble drug in solid dispersion to improve bio availability. The result concluded that the bioavailability of poorly water soluble drug was increased from water soluble carrier and was further improved by addition of a surfactant36.

Kim et al(2006), studied preparation of solid dispersion of Felodipine using solvent wetting method. The dissolution rate of Felodipine PVP, HPMC and Poloximer by solid dispersion was markedly improved37.

Masareddy et al(2008), studied the formulation of mouth dissolving tablets of colzapine by two different methods ie direct compression and sublimation where expotab was used as a superdisintegrant and Camphor was used as a subliming agent. These formulations were evaluated for various parameters like hardness, friability, drug content, degradation and in vitro drug release studies. It has been concluded that direct compression technique enhance the absorption which lead to increased bio availability38.

Shivakumar et al(2006), have formulated Carbamazepine inclusion complex with β cyclodextrin. These formulations were evaluated for various parameters like hardness, friability, drug content, degradation and in vitro drug release studies. Complexes of Carbamazepine and β cyclodextrin prepared in 1:2 molar ratios by kneading method, showed enhanced solubility39.

Setty et al(2008), have developed fast dispersable aceclofenac tablets using Ac-Di-Sol, polyplasdone and explotab. Disintegration time and dissolution parameter decreased with increased in the level of Ac-Di-Sol where as disintegration time and dissolution parameter increased with increased in the level of sodium starch glycolate40.
Shirwaikar et al (2007), have reported on novel co-prossed excipient of mannitol and microcrystalline cellulose for preparing fast dissolving tablets of glipizide. Coprocessed particals of microcrystalline cellulose and mannitol were fabricated by spray drying technique to be used as a direct compression excipient in FDDTs. Co-processed formulation containing mannitol and microcrystalline cellulose in the ratio 1.25:1 was found to have optimized powder and compressibility characteristics with fast disintegrating property (<15s)\textsuperscript{41}. 