Evaluation of Food Effect on the Absorption of Clarithromycin using Physiological Modeling

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Abstract:

Background: Food may have an impact on the oral absorption of ibuprofen from gastrointestinal tract (GI) by affecting its dissolution rate or by inducing physiological changes in the GI tract.

Aim : is to evaluate the effect of FDA standard food on the in vitro release and disintegration of ibuprofen from immediate release tablet.

Method: In vitro disintegration and dissolution of ibuprofen 400 mg immediate release (IR) tablet in compendial media with/without the addition of homogenized FDA meal were determined.

Results: Prolonged tablet disintegration time and slower dissolution rateswere shown in the presence of FDA meal (fed state) compared to the fast state (compendial media)

Conclusion: The intake of FDA meal with ibuprofen may help in reducing the side effects of ibuprofen however, it may decrease the therapeutic effect and the bioavailability of the drug