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FORMULATION AND EVALUATION OF PARACETAMOL TABLET TO ASSESS THE BINDING PROPERTY OF SWEET LEMON PEEL PECTIN

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ABSTRACT

The aim of present work was to extract pectin from dried as well as wet sweet lemon fruit peels to assess its binding property in tablets using paracetamol as a model drug. Firstly sweet lemon peel or its powder was subjected to simple water heating extraction method and pectin was isolated using ethanol as precipitating agent. Then after four batches were formulated using pectin in different proportions. Precompression and post compression studies were perform for each formulation. The results obtained for all precompression and post compression parameter were found within acceptable range of pharmacopoeias. On the basis of peel pectin can act as a excellent binder in dosage forms. Since it is of natural origin and sweet lemon peel available at low cost it may prove to be better binder over commercially used synthetic binders.

KEYWORDS: Binding property, Sweet lemon peel pectin, Simple hot water based extraction.

INTRODUCTION

In indian subcontiment the sweet lime (Citrus limettarisso), is commonly known as "Mosambi". It is best cultivated in India, China, southern Japan, Vietnam, Malaysia, Indonesia and Thailand and is native to Asia and. This fruit is eaten fresh or squeezed to make juice, it is rich source of vitamin C and replenish energy.[1,2]

Pectin mainly comprise of the partial methyl esters of polygalacturonic acid and their sodium, potassium, calcium, and ammonium salts. By the extraction in an aquous medium of approval plant material these salts are obtained. It is odourless or has slightly characteristic odour and occurs as a white to light brown powderor granular and.[3]

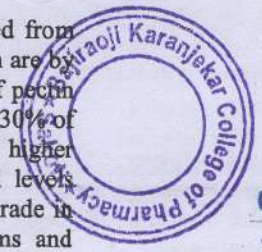
In the food, pharmaceutical and biotechnological industry pectin have more applicable. It comprise of non-sugar contituents, essentially meethonol, acetic acid, phenolic acid and occasionally amide groups.[4]

Commertial pectin are almost exclusively derived from citrus peel or apple pimac at prsent, both of which are by-products of juice manufacturing units. 10-15% of pectin in Apple pomac contain on a dry matter basis. 20-30% of pectin contain by Citrus peel which is relatively higher compared to that of apples.[5] blood cholesterol levels reduced by consumption of pectin. Pectine is degrade in the large intestine and colon by microorganisms and liberate short-chain fatty acids that have positive effect on health.[6,7,8]

In an attempt to verify the use the use of pectin as polymer in dosage forms this research work was initiated. The scope of present work is to establish orange peel pectin as a binding agent against the commertially used one's like starch. For this purpose, paracetamol which is analgesic and antipyretic was selected as a model drug.

Botanical classification of Sweet lemon

Kingdom	:-	Plantae
Division	:-	Magnoliophyta
Class	:-	Dicotyledons
Sub class	:-	Sapindales
Order	:-	Rosidae
Family	:-	Rutaceae
Sub family	:-	Aurantoideae
Sub genera	:-	Papeda



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