Healthcare Applications of Okra Biopolymer

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Over the years, a great deal of attention has been paid to explore and develop novel polymers having versatile applications. As a result, a large number of polymers, especially from natural origin have been successfully developed. For instance, okra extract based bio-polymer is an inexpensive and non-toxic bio-polymer. It is naturally obtained from okra plant (Abelmoschus esculentus L.) and considered to be an acidic polysaccharide consisting different sugars, including galactose, rhamnose, galacturonic acid, glucose and glucuronic acid. The aim of this study was to summarise the healthcare applications of okra biopolymer. As it has been successfully used as an emulsifying agent and it has the ability to swell and control the drug release over a period of time. It is a good tablet binder and many studies have reported that it can enhance the compression ability of many drugs. It has been used in nasal drug delivery and to develop oral dispersible films. Recently, its tablet coating and mucoadhesive properties have also been reported. Moreover, okra has also shown biomedical applications as tannins and flavonoids protect against gastric mucosal damage via generation of protective layers at ulcer sites and cytoprotection. The polysaccharide has also been shown to inhibit adhesion of *Helicobacter pylori* to stomach tissue and its ability to reduce blood glucose and cholesterol levels gives okra a potential role in the treatment of diabetes and obesity. In scientific literature an increasing number of studies have been reported on okra biopolymer, so this timely review will possibly give a deeper understanding and facilitate the scientists to recognise its health care potential.