EDITORIAL

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The Significance of Phyto-Fabricated Nanoparticles in Curing Gastric Ulcer

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Can phyto-fabricated nanoparticles substitute conventional medicines by treating gastric ulcer? What should be the main target of phyto-fabricated nanoparticles for ameliorate the recent medicinal applications? During the research of this particular area, such innovative questions appear in our minds. Still, there are many areas regarding nanomedicine pertaining to safety and uniform synthesis which remain ambiguous. Plant-based nanoparticles increase their potential, especially in nanomedicine area due to eco-friendly approaches.

Nanotechnology clinical applications

Nanotechnology is a science which deals with the manipulation of nanoparticles which ranges from 1 to 100 nm. The twentieth century is innovatively revolutionized by the foremost advancement in the field of nanotechnology and its applications, especially in the medical domains. Nanomedicines, nanotechnology applications as they are used for diagnoses and treatment of different diseases. For instance, nano bio-sensors turned the focus of many scientists, to be used for early detection of cancer. In vivo delivery of siRNA against liver fibrosis loaded with nanoparticles have also made a bridge of attention for many inventors [1]. Additionally, nanoparticles have caught the minds to be used against different pathogenic strains, especially green synthesized nanoparticles. Phyto-fabricated nanoparticles are found an alluring tool for antimicrobial drug delivery [2].

Helicobacter pylori (H.pylori) and stomach ulcer

Helicobacter pylori (*H.pylori*) a gram-negative bacterial specie leads to remarkable common bacterial infections worldwide. About two-third of the world's population receives them in their bodies through different sources. Consequently, these species are linked with peptic ulcer, chronic gastritis and similar may be associated with gastric carcinoma [3].

Phyto-fabrication nanoparticles as a medicine for stomach ulcer

Medicinal plants having well established therapeutic importance are being widely used for the size and shape-controlled synthesis of nanoparticles. The different researchers utilize plant-based nanoparticles as a medicine to treat stomach ulcer. As silver nanoparticles were synthesized from the root of *Glycyrrhiza glabra* L (Anti-ulcer plant), which exhibits the therapeutic potential against [4]. Drug resistance bacteria are very hard to treat with antibiotics therefore, for these purpose alternative routes are needed. (2016) revealed from their study that gold nanoparticles using *Tribulus terrestris fruit extract*

targets multi-drug resistant [5]. It is clear from the above result that phyto-fabricated nanoparticles could also play a vital role in the treatment of drug-resistant bacteria.

Clue

Finally, indeed it becomes an established fact that we need to enhance knowledge about nanotechnology in green chemistry and nanomedicine. Its magical benefits in the curing of stomach ulcer will be a milestone as compared to traditional treatment. We need to be careful about the risks while handling nanoparticles applications in above said important fields. The use of another synthesis like chemical and physical are considered to be more toxic and time-consuming respectively. Some chemicals that are being used during the synthesis of NPs through a chemical route can remain attached on the surface of the NPs and therefore, could not be used for the biomedical application. Nanoparticle synthesis by green chemistry process, using plants is an alternative to all these processes. The binding of polymers and liposomes with phyto-fabricated nanoparticles could exhibit as a therapeutic potential against *H.pylori* and will treat an ulcer with huge efficacy.

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Competing Interests:

The authors declare that they have no competing interests.

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