Comparative study of silver and gold nanoparticles of *Viscum album* and its antimicrobial activity

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Biological synthesis of silver and gold nanoparticles of *Viscum album* was compared in current research work. The comparative study revealed that crude leaf extract of V. Album shows that as compared to silver the gold metals are easily reduce to nano level. Different characterizations were carried out to confirm the synthesis of nanoparticles. UV visible spectroscopy revealed that the synthesized nanoparticles are smaller in size, spherical in shape and dispersed in reaction medium. Both samples give a sharp peak at exact lambda max, specified for gold and silver. SEM analysis shows that both AuNPs and AgNPs are spherical and rounded in morphology. FTIR analysis shows the presence of various functional groups which are responsible for the synthesis of nanoparticles. The synthesized nanoparticles were further evaluated for antifungal and antibacterial activities. The test samples were measured against the standard antibiotic cefixime. Interesting both test shows good antimicrobial activity as compared to standard. From current work it is concluded that crude extract of V. Album shows strong reducing and antimicrobial power.

Biography: Dr. Sumaira Shah is working as a regular lecturer at Department and Botany of botany at Bacha Khan University Charsadda, Pakistan from 2014 till now. She holds her Master degree in Botany in, 2010, M. Phil in 2012 and Ph.D. in 2016 from the University of Peshawar, Pakistan in Nano biotechnology. She has a teaching experience of 5 years at university level. Dr. Sumaira Shah visit to Brown University USA for her research work during Ph.D. Dr. Sumaira has participates in various national and international conferences. She has been published her work in various international journals. She is fascinated with teaching and research.

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