Green one step morphosynthesis of silver nanoparticles and their antibacterial and anticancerous activities

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Supporting Information

Fig. S1

Particle size distribution histogram is determined by counting nanoparticles.
Energy-dispersive spectroscopy (EDS) of AgNPs obtained at concentration of sodium cholate of 8 mM and AgNO3 concentration of 1 mM
Table 1.

Antibacterial activity of Ag NPs on multi drug resistant *E. coli* strain (MC 4) and multi drug resistant *S. aureus* strain (MMC 20). Here: MIC: Minimum inhibitory concentration; MBC: Minimum Bactericidal Concentration, and DAD: Disc agar diffusion.

<table>
<thead>
<tr>
<th>Bacterial Strains</th>
<th>Particles</th>
<th>MIC (µg/ml)</th>
<th>MBC (µg/ml)</th>
<th>DAD (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. coli (MC 4)</td>
<td>Ag NPs</td>
<td>64</td>
<td>128</td>
<td>50 µg/ml - 8.66±0.33* mm &lt;br&gt; 100 µg/ml - 13.56±0.51* mm</td>
</tr>
<tr>
<td>S. aureus (MMC 20)</td>
<td>Ag NPs</td>
<td>32</td>
<td>64</td>
<td>100 µg/ml - 17.36±0.47* mm &lt;br&gt; 50 µg/ml - 9.53±0.48* mm</td>
</tr>
</tbody>
</table>
Fig. S3

Anti-microbial sensitivity pattern of Ag NPs by disc agar diffusion method. Here, A: Disc agar diffusion pattern of multi drug resistant *E.coli* strain and B: Disc agar diffusion pattern of multi drug resistant *S. aureus* strain. All strains were exposed to 50 (a) and 100 (b) µg Ag NPs containing disc and subsequently incubated for 24 hr at 37ºC. Inhibition zones were recorded by using zone scale.
**Figure A.** Determination of MIC value of Ag NPs for multi drug resistant E. coli strain. MIC of Ag NPs for MC 4 isolate was 64 µg/mL. Here, -ve : negative control, + ve : positive control, a : 1 µg/mL, b : 2 µg/mL, c: 4 µg/mL, d : 8 µg/mL, e: 16 µg/mL, f: 32 µg/mL, g: 64 µg/mL, h: 128 µg/mL.

**Figure B.** Determination of MIC value of Ag NPs for multi drug resistant S. aureus strain. MIC of Ag NPs for MMC 20 isolate was 32 µg/mL. Here, -ve : negative control, + ve : positive control, a : 1 µg/mL, b : 2 µg/mL, c: 4 µg/mL, d : 8 µg/mL, e: 16 µg/mL, f: 32 µg/mL, g: 64 µg/mL, h: 128 µg/mL.
Figure A. Determination of MBC value of Ag NPs for multi drug resistant *E. coli* strain. MBC of Ag NPs for MC 4 isolate was 128 µg/mL. Here, -ve : negative control, + ve : positive control, a : 1 µg/ mL, b : 2 µg/ mL, c: 4 µg/ mL, d : 8 µg/ mL, e: 16 µg/ mL, f: 32 µg/ mL, g: 64 µg/ mL, h: 128 µg/mL.

Figure B. Determination of MBC value of Ag NPs for multi drug resistant *S. aureus* strain. MBC of Ag NPs for MMC 20 isolate was 64 µg/mL. Here, -ve : negative control, + ve : positive control, a : 1 µg/ mL, b : 2 µg/ mL, c: 4 µg/ mL, d : 8 µg/ mL, e: 16 µg/ mL, f: 32 µg/ mL, g: 64 µg/ mL, h: 128 µg/mL.