

Supporting Information

An injectable elastic hydrogel crosslinking with curcumin-gelatin nanoparticles as a multifunctional dressing for the rapid repair of bacterially infected wounds

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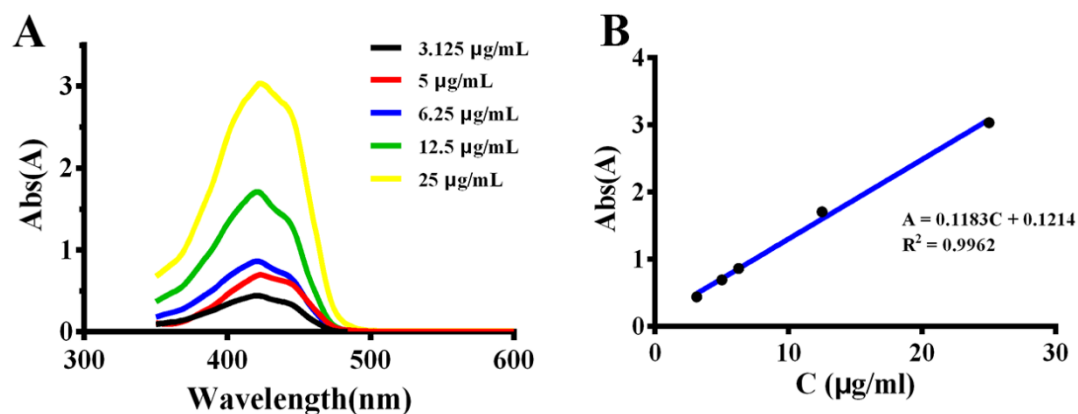


Fig. S1 Ultraviolet spectrum and standard curve of curcumin solution. (A) UV-vis spectra of different concentrations of curcumin solutions. (B) Absorbance-concentration standard curve of curcumin solution.

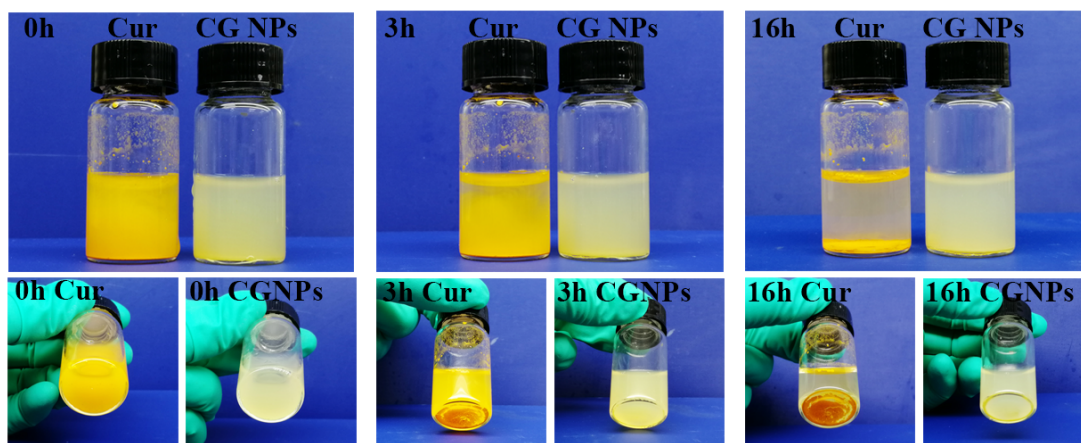


Fig. S2 Photographs of the curcumin solution, CG NPs solution at 0 h, 3 h and 16 h.

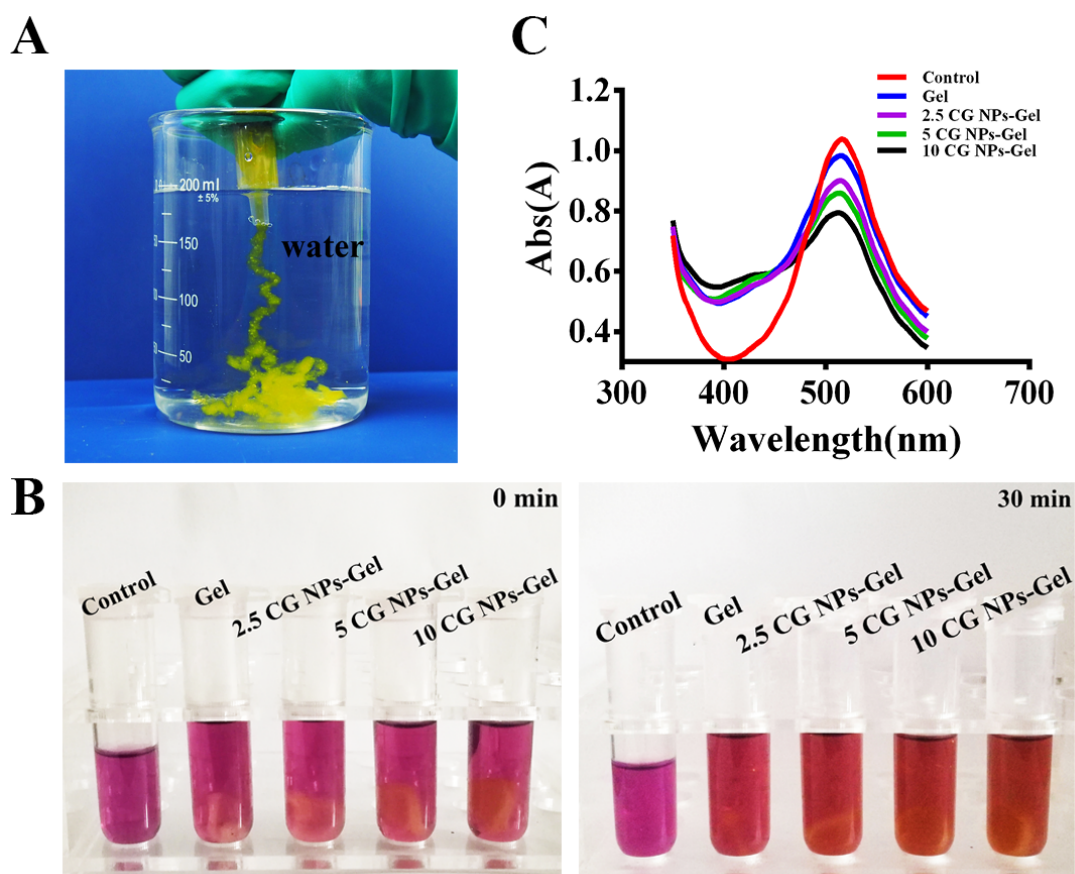


Fig. S3 The injectability and antioxidant properties of CG NPs-Gels. (A) The injectability of CMCS-OSA hydrogel through the syringe. (B) Photographs of all groups of DPPH solutions at 0 min and 30min. (C) UV-vis spectra of control, Gel, 2.5 CG NPs-Gel, 5 CG NPs-Gel and 10 CG NPs-Gel.

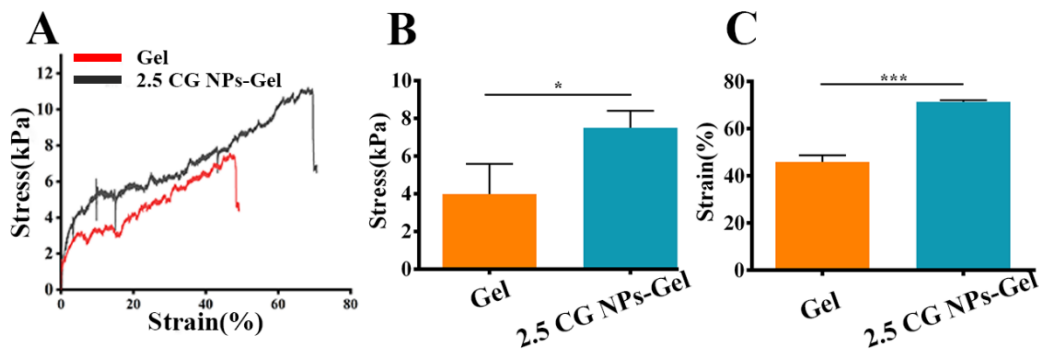


Fig. S4 Tensile test of the injectable hydrogel. (A) Tensile stress-strain curve of Gel and 2.5 CG NPs-Gel. (B) Statistical diagram of tensile stress of Gel and 2.5 CG NPs-Gel. (C) Statistical diagram of tensile strain of Gel and 2.5 CG NPs-Gel. * ($P < 0.05$), ** ($P < 0.01$) and *** ($P < 0.001$).

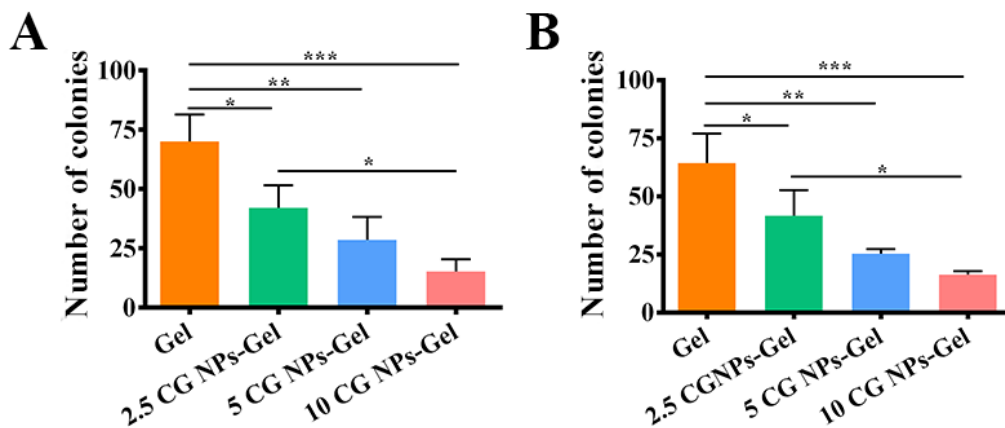


Fig. S5 Quantitative analysis of the antibacterial properties of CG NPs-Gels. (A) Statistical plot of *E. coli* colonies on the hydrogel of each group. (B) Statistical plot of *S. aureus* colonies on each hydrogel group. * ($P < 0.05$), ** ($P < 0.01$) and *** ($P < 0.001$).

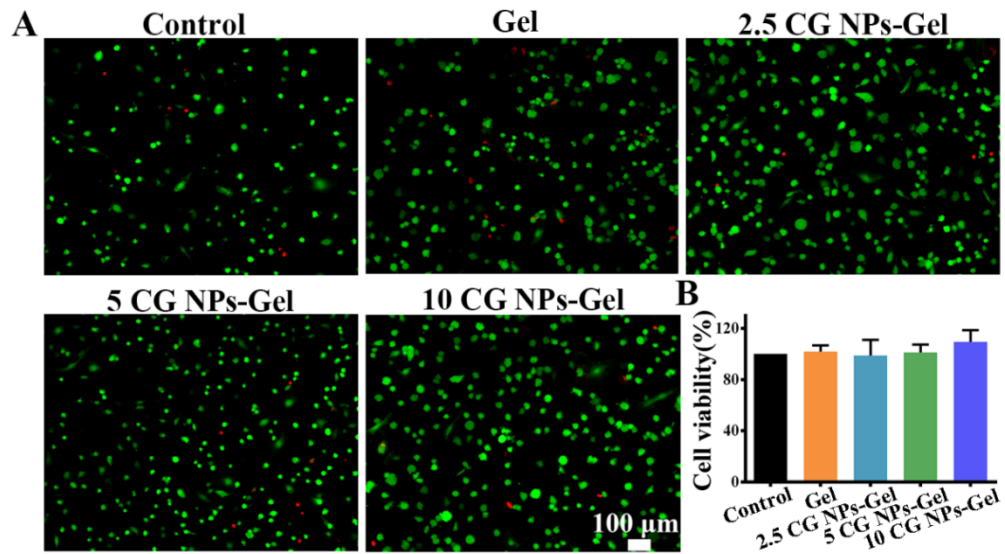


Fig. S6 The biocompatibility of CG NPs-Gels. (A) Live/dead staining of HUVECs after 24 hours of incubation of all groups. (B) The cell viability of HUVECs after 24 hours of incubation with the leach liquor of Gel, 2.5 CG NPs-Gel, 5 CG NPs-Gel and 10 CG NPs-Gel. *($P < 0.05$), ** ($P < 0.01$) and *** ($P < 0.001$).