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Chitosan–Hyaluronic acid composite sponge scaffold enriched with Andrographolide-loaded lipid nanoparticles for enhanced wound healing.

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Highlights

- Andrographolide lipid nanoparticles were prepared and statistically optimized.
- • Chitosan-hyaluronan/Andrographolide nanocomposite scaffold was successfully prepared.
- • Addition of Andrographolide nanocarrier showed proper porosity and swelling ratio.
- • Chitosan-hyaluronan/Andrographolide scaffold showed enhanced wound healing capacity.

Abstract

In this work chitosan–hyaluronic acid composite sponge scaffold enriched with andrographolide (AND) lipid nanocarriers was developed. Nanocarriers were prepared using solvent diffusion method by applying 2³ factorial design. NLC4 had the highest desirability value (0.882) and therefore, it was chosen as an optimal nanocarrier. It exhibited spherical shape with

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