

Harmonizing the Adhesion-Release Dilemma: Bio-based Injectable Hypertonic Hydrogel for Bladder Perfusion Therapy

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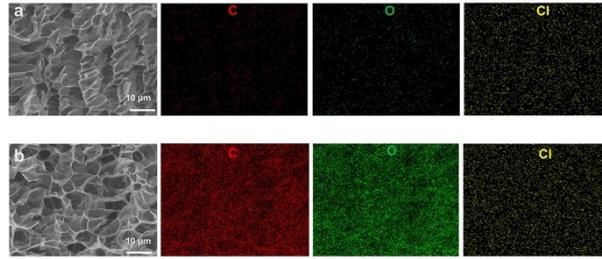


Figure S1. EDS element analysis diagram of drug-loaded hydrogel

We used the drug characteristic element chlorine to reflect the distribution of epirubicin hydrochloride in the hydrogel. Figs. S1a and b are the microscopic morphologies of different tannic acid concentrations. It can be seen that the chlorine element is evenly distributed in the hydrogel, which verifies the good encapsulation of the drug in the hydrogel.

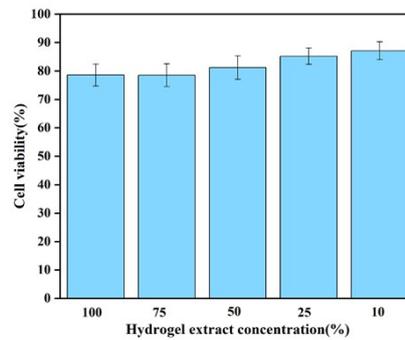


Figure S2. Cell survival rate under different concentrations of hydrogel extract culture

From Figure S2, it can be seen that the cell survival rate of different hydrogel extracts is about 80 %, and the general cell survival rate is more than 75 %. It can be considered that the cytotoxicity of the material is small, so the material has good biocompatibility.

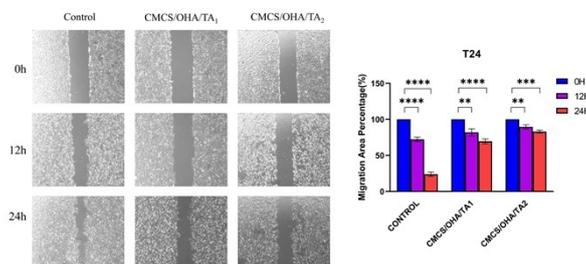


Figure S3. A) After treatment with different concentrations of extract, the scratch healing of T24 cells at different time points was observed under a microscope. B) The ratio of scratch area to initial scratch area (0 hour) at 12 hours and 24 hours in different concentrations of extract treatment groups.

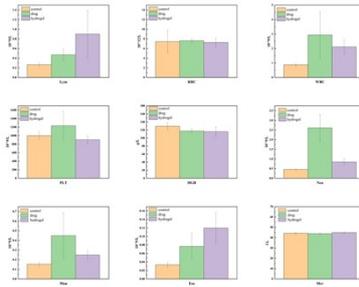


Figure S4. Comparison chart of related blood analysis indexes

After the blood was taken from the orbit of the nude mice, the blood biochemical analysis was carried out. The relevant blood biochemical indexes of the three groups were shown in Fig. S3, and the relevant indexes were within the normal range. It can be considered that it has good in vivo compatibility.