Supporting Information

Microneedle-Mediated Delivery of Lipid-Coated Cisplatin Nanoparticles for Efficient and Safe Cancer Therapy

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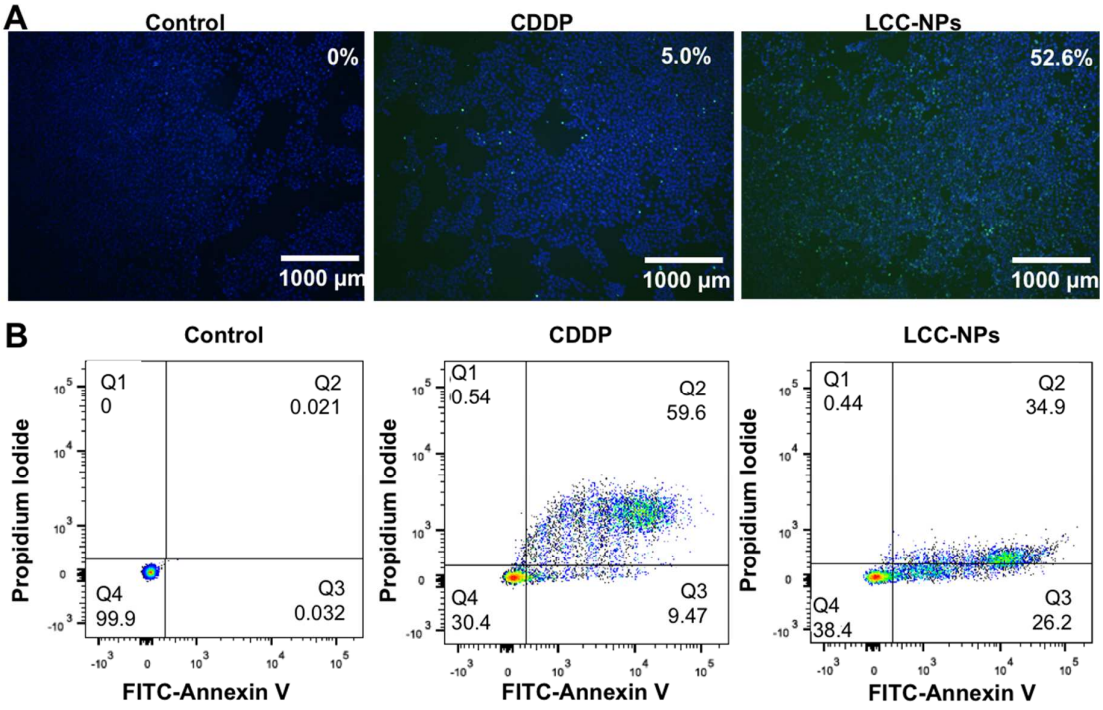

Figure S1. (A) After the treatment of CDDP or LCC-NPs for 4 h, the apoptotic DNA fragmentation in the treated CAL 27 cells were studied using *in situ* TUNEL assay followed by fluorescent imaging (B) CAL 27 cells were stained with annexin V conjugated FITC and PI. The cell apoptosis was analyzed using flow cytometry.

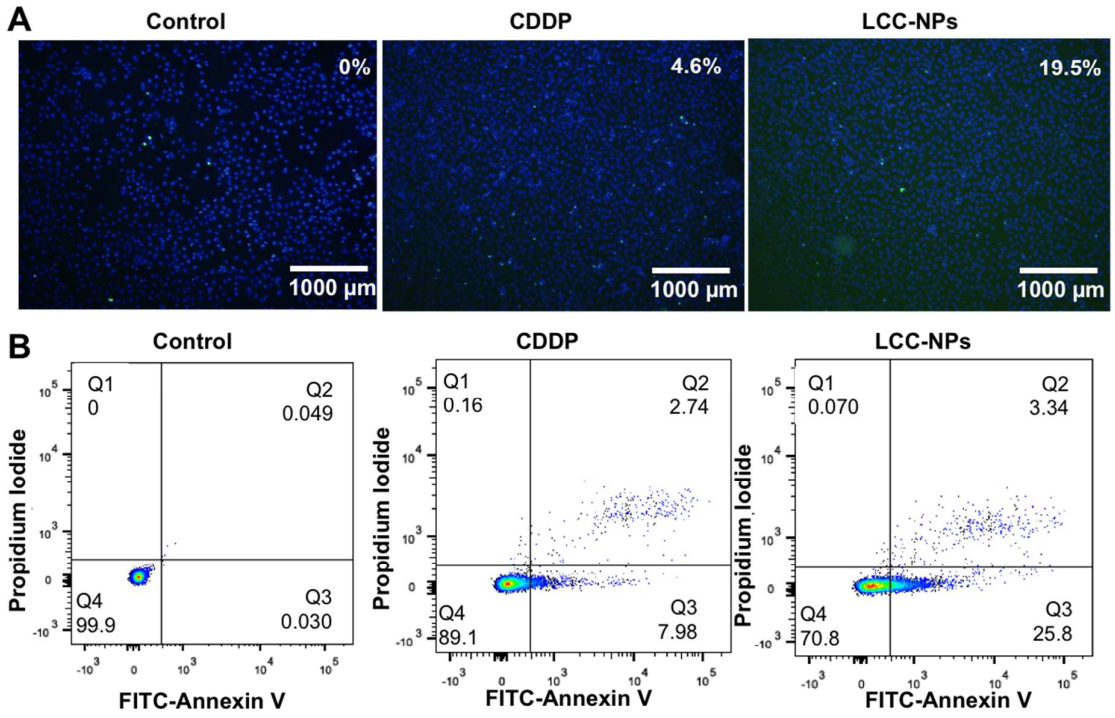

Figure S2. (A) After the treatment of CDDP or LCC-NPs for 4 h, the apoptotic DNA fragmentation in the treated SCC 15 cells were studied using *in situ* TUNEL assay followed by fluorescent imaging (B) SCC 15 cells were stained with annexin V conjugated FITC and PI. The cell apoptosis was analyzed using flow cytometry.

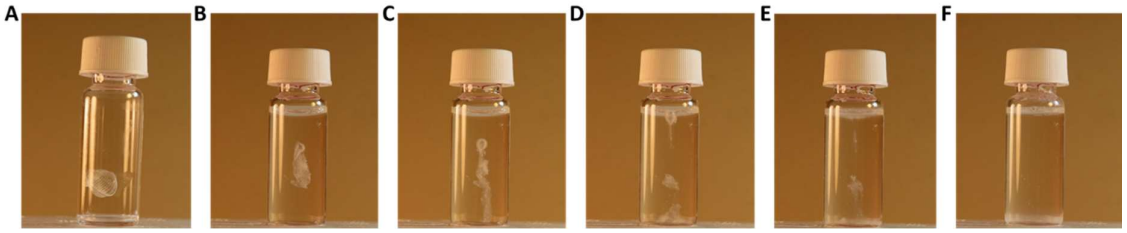

Figure S3. Dissolving process of SCMC material in water (A. Starting point; B. 5s; C. 30s; D. 1min; E. 3min; F. 5min).

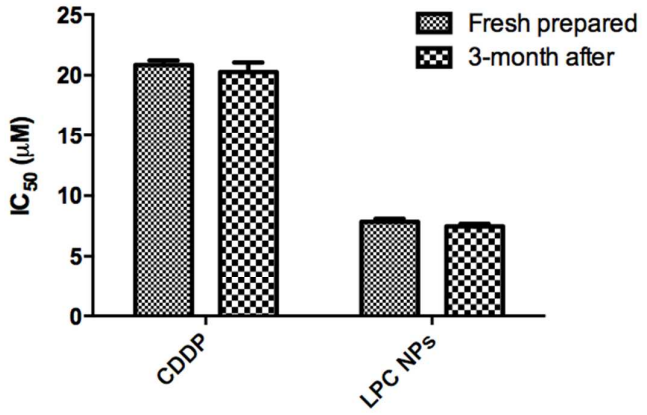

Figure S4. IC_{50} value of CDDP and LCC-NPs 3 months after prepared compared with the fresh prepared drugs on CAL 27 cell line. No significant difference was detected.

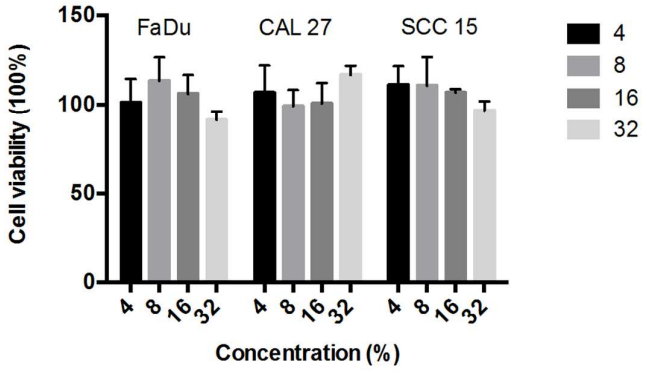

Figure S5. Cell viability of three HNSCC cell lines when treated with different concentration of SCMC.