

Supplementary File

Two-stepped pH-Responsive Peptide Microspheres/Carboxymethyl Chitosan Complex: Enhanced Protection of Inflamed Dentin-Pulp Complex

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Supplementary Materials and Methods

After 7 days of culture, cells were lysed with TRIzol reagent (Takara Bio, Shiga, Japan) to collect mRNA. cDNA was synthesized using the RT Reagent Kit (Takara Bio, Shiga, Japan). The expression of odontogenic genes *Alp*, *Dspp*, and *Dmp1* were analyzed by real-time quantitative polymerase chain reaction (qPCR). The primers sequences were listed in Table 1.

Table S1. The sequences of the primers.

Name	Forward primer sequence	Reverse primer sequence
DSPP	TTTGGGCAGTAGCATGGGC	CCATCTTGGGTATTCTCTTGCCT
DMP1	CAGGAGCACAGGAAAAGGAG	CTGGTGGTATCTTGGGCACT
GAPDH	GCTCTCTGCTCCTCCTGTTCG	GCGAACACATCCGGCCTGC

Supplementary Result

Figure S1. Bactericidal and antibiofilm activity of PM/CS against *S. mutans*. (A) Spot assays showing the bactericidal effects of PM/CS and 2%CHX at pH 5.5 and pH 7.4 over different incubation periods. (B) Live/dead staining of biofilms observed under confocal microscopy, with green fluorescence indicating live bacteria and red fluorescence indicating dead bacteria.

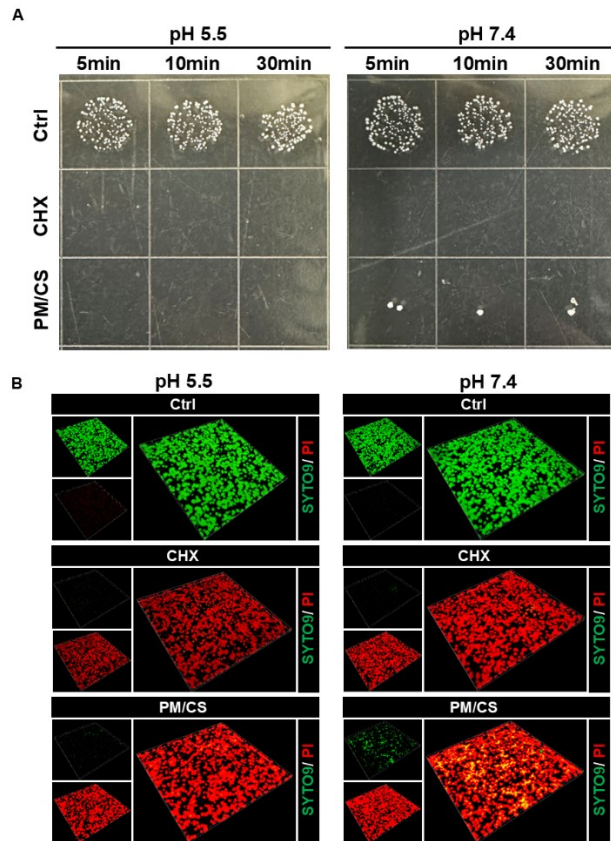


Figure S2. Weight change curve of rats after indirect pulp capping surgery.

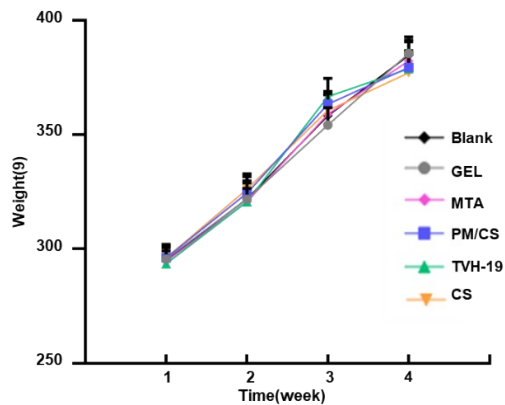


Figure S3. Hematological results of rats 4 weeks post-surgery.

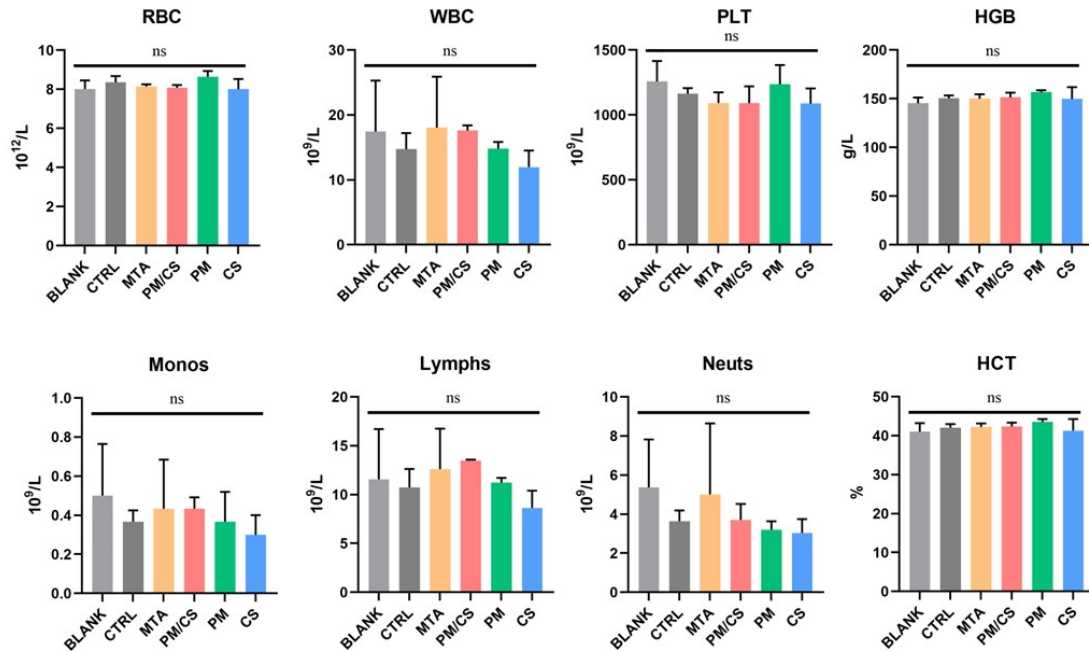


Figure S4. Blood biochemical indicators of rats 4 weeks post-surgery.

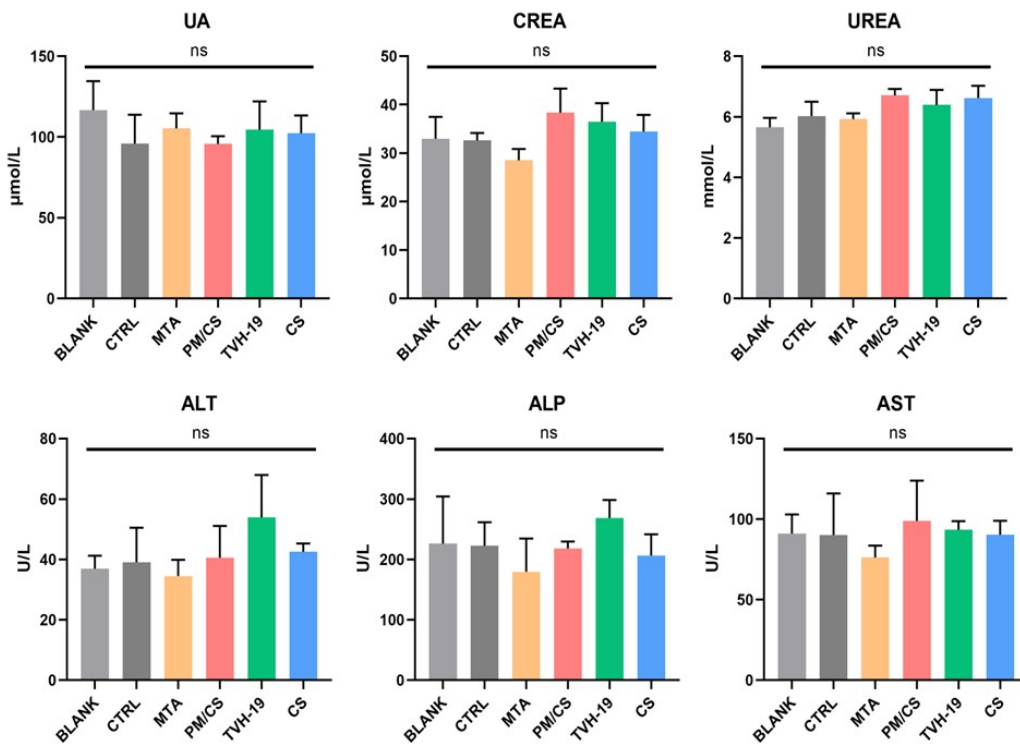


Figure S5. H&E staining of key organs in rats 4 weeks post-surgery.

