**Title(up to 15 words)-Capitalize the First Letter of Each Word**

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**Objective:** The word limit for an abstract is 250 words. Please replace the sentences in grey by your abstract body content. To enhance vascularization and dentinogenesis in pulp regeneration, the injectable biphasic hyaluronic acid hydrogels with lovastatin were developed and their physical biocompatible properties were investigates in this study. **Materials and Methods:** The 2% crosslinked hyaluronic acid (cHA) using BDDE was synthesized and then mixed with different ratio of 2% non-crosslined hyaluronic acid (HA) to form the biphasic hyaluronic acid hydrogel (biHAG). The Lova@biHAGs were prepared by mixing the biHAG with Lovastatin-PLGA nanoparticles, which was produced using Ho et al method. The residual of BDDE, rheology, viscosity, lovastatin releasing behavior and cytotoxicity of materials were investigated. **Results and Discussion**: No residual BDDE was found in HAG. The increase of HA and addition of Lovastatin-PLGA in biHAG did not alter the G’ modulus. However, the increase of HA would cause the significant decrease of viscosity result in the better injectable properties. Meanwhile, the addition of Lovastatin-PLGA had mild effect on viscosity. In addition, Lova@biHAG presented the slow releasing behaviors of lovastatin and more HA content reached the plateau of lovastatin releasing earlier than those with less HA content. All biHAG and Lova@biHAG presented the good cell viability in WST-1 assay and the low cell death in LDH test. The content of HA in biHAG did not affect their modulus and biocompatibility, but changed their viscosity and the releasing behavior of lovastatin.

**Keywords:** 2-6 keywords / Please use lower case letters for keywords

**Funding:** If any, please mentioned here.