

Fabrication of Biodegradable Microneedle Arrays (MNs) containing Lidocaine for Transdermal Drug Delivery System (TDDS)

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Transdermal Drug Delivery System (TDDS) is a type of dose designed to deliver a therapeutic and effective dose to the patient's skin. Lidocaine is a local anesthetic agent and antiarrhythmic agent. It is slightly inferior to the action or duration aspect than the tetramethyl to which the local anesthetic action is the strongest. However, it is common to use lido casein, because it has a toxic weak and sufficient efficacy than the tetramethyl. In this study, we propose here the use of microneedle arrays (MNs) containing Lidocaine. MNs technology is a percutaneous drug delivery technology that enables human sensory organs to effectively deliver physiological activators to the subcutaneous layer of the subcutaneous by using microstructure that are too small to feel pain. MNs containing Lidocaine were prepared by casting on the PDMS mold with hyaluronic acid (HA) and carboxymethyl cellulose (CMC). Also, the morphology and the transmittances of MNs were investigated with SEM and with an artificial skin membrane respectively.