ELECTROSPUN NANOFIBROUS SCAFFOLD WITH DRUG RELEASING PROPERTIES

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The aim of this work was to develop a nanomat with diclofenac sodium releasing properties. A bioabsrbable polymer was diluted into solvent. Diclofenac sodium was added to the solution. Nano-fibers were made by electrospinning onto substrate. Microstructure of the sheet was studied using SEM and drug release profiles with UV/VIS spectroscopy.

Thickness of spinned sheet was about 2 mm. SEM analysis showed that polymeric nano-fibers containing drug particles form very interconnected porous nano structure. The average diameter of nano-fibers was 130nm. After the high start peak of drug release as the rate was decreased after one day. More details will be presented.

The nano-fibrous porous structure made of bioabsorbable polymer loaded test drug is feasible to develop and hoped to improve biomaterial properties for analgesic release applications.

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