Recently, there has been considerable research leading to the development of polymers with biological basis, that from agricultural products or waste products from food. This interest intensified due to concerns about limited natural resources of fossil reserves, fuel and environmental impact by using materials that are not biodegradable plastic based. One of the natural renewable polymers is chitosan, its scientific interest is growing to be ever wider possible fields of application, such as those related to chemistry, biochemistry, pharmacology, food science and materials science. The antibacterial properties of chitosan are very important in the medical field because help wounds heal faster, and dermatological applications have a good skin regenerator when this has been exposed to burns. In this work antibacterial microfibers were processed by the technique of electrospinning, which involves applying a potential difference of the order of 10 kV between two electrodes, of which one is a metal needle, whereby the polymer solution is extruded, which favors the formation of the microfibers after the surface tension between the needle and the solution is overcome due to the electric field generated by the two electrodes. The microfibers are obtained in the form of non-woven membranes. For characterization of the microfibers we used techniques such as scanning electron microscopy, x-ray diffraction FTIR spectroscopy, the results obtained enable to identify the functional groups present in the microfibers, the degree of crystallinity of the microfibers and the diameters were used fibers forming such membranes which are in the range of microns.

Keywords: Antibacterial, Microfibers, Chitosan

References:


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