

Abstract: Forty-eight second-degree wounds on the backs of three pigs, which were divided into 3 groups, were covered with vaseline-oiled gauze or 700 V PTFE electret substrates. The effect on accelerating the wound healing was investigated by determining the content of DNA from an epithelial cell on the wound, observing the the growth of an epithelial cell with the microscope and calculating the reduction rate of wound area by using a computer. The results showed that electret treatment can enhance the growth of an epithelial cell and raise the content of DNA. An electret can accelerate the wound healing. The optimal equivalent surface potential for the PTFE electret film is about -700 V.