

Assessment of collagen film for use in urinary tract surgery

Scott, R; Baraza, R; Gorham, SD; McGregor, I; French, DA

Date: 1986

Abstract

This investigation assessed a biodegradable collagen membrane which can be sutured around the ureter to prevent urine leakage, thus permitting healing to proceed more rapidly while the membrane itself is resorbed. Following an early in vitro investigation in which collagen was assessed, a more comprehensive survey has now been carried out. Tissue compatibility and biodegradation were assessed by implanting the film into the lumbar muscles of rats; it was then used to cover experimental ureterotomies in New Zealand White rabbits. The data obtained from the rabbits confirmed that a collagen membrane can prevent leakage of urine from the ureter during healing while it itself is biodegraded, indicating that a collagen membrane could be used to repair the injured urinary tract.