

## **Preliminary development of a collagen membrane for use in urological surgery**

Gorham, S; McCafferty, I; Baraza, R; Scott, R

Date: 1984

### **Abstract**

A series of experiments have been carried out in-vitro in order to assess the possibility of using a collagen membrane in the repair of various sections of the urinary tract following operative surgery such as the removal of a stone from the ureter. The collagen film has been tested for its compatibility with urine, its ability to prevent leakage of fluid in a simulated wound in-vitro and for its ability to withstand any degradative effect of liver and kidney homogenates. The material was not significantly degraded by either urine or by tissue homogenates and was able to prevent leakage of fluid under the experimental conditions employed. Although some slight build-up of calcium and some trace elements took place after incubation in urine over a six-day period this was not significant. On the basis of the results obtained it has been decided to proceed to in-vivo trials on rabbits using the collagen membrane. The possibility of using such a material in partial nephrectomy operations is discussed