

HAEMOSTATIC MOULD

Introduction

Most often a nephrectomy is performed to treat kidney cancer or to remove a noncancerous (benign) tumor. In some cases, a nephrectomy is performed to deal with a diseased or seriously damaged kidney.

When nephrectomy is performed, all or part of the kidney is removed. In a partial nephrectomy, the surgeon removes diseased tissue from a kidney and leaves healthy tissue in place.

Particularly, in a partial nephrectomy, the surgeon removes that part of the kidney that contains the tumor, leaving the rest of the kidney behind. Once the tumour is removed, suture repair (renorrhaphy) is currently needed, which leads to associated tissue damage, among other side effects. Particularly, the use of renorrhaphy is associated with damage to healthy parenchyma with impaired renal function, risk of complications such as arterioalical fistula, and it is also associated with a possible increase in ischaemia time.

So, there is an unmet medical need of finding reliable strategies to avoid the side effects caused when renorrhaphy is carried out after the removal of a solid tumor, for instance after partial nephrectomy.

Product

The present invention refers to a haemostatic mould (hereinafter mould of the invention), suitable for the haemostasis of wounds after the removal of a solid tumor, preferably after partial nephrectomy.

The mould of the invention comprises a combination of two biocompatible and absorbable components: i) haemostatic component which would be placed at the external zone of the mould, in contact with the surface where haemostasis, or eventual sealing of the urinary tract, is required; and ii) compressible and/or mouldable component which would be placed inside the mould, filling the entire volume of the mould.

The mould of the invention allows a precise and effective haemostasis, dispensing with other forms of haemostasis such as suturing.

State of the invention

The haemostatic mould of the invention has been assayed in 14 patients. All patients underwent partial nephrectomy. Lesions between 1 and 7 cm were treated. Of note, no patient required reconversion of the technique and suture was not used or required as a form of haemostasis.

Advantages

The present invention is focused on a new strategy for the haemostasis of wounds after the removal of a solid tumor, for instance after partial nephrectomy, is herein provided. This innovative strategy avoids the need for sutures after surgery, eliminating side effects observed when suture repair is applied, and, at the same time, enables the effective application of haemostatic compounds.

Protection

European Patent requested on 28/04/2022 and with application number EP22382407.9.

Type of partnership considered

Licensees, co-developers or investors

Inventors

David Subirá Ríos, specialist in Urology in Gregorio Marañón Hospital, Madrid. The foundation for Biomedical Research of Hospital Gregorio Marañón owns 100% of the intellectual property rights.

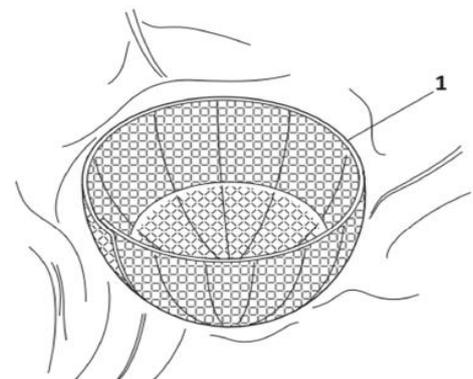


Figure 1. The mould of the invention is illustrated by showing the haemostatic component (1) which is placed at the external part of the mould.