Reference: TampónNasal (20BIO02)

GREEN HEMOSTATIC SPONGE-LIKE SCAFFOLD

This invention consists of a sponge-like scaffold based on natural biopolymers for the treatment of nasal haemorrhages among other acute and chronic bleeding injuries.

TYPE OF DEVELOPMENT

Medical scaffold.

DESCRIPTION

The developed sponge-like scaffold is composed of natural biopolymers. This device has shown to be completely biocompatible and partially biodegradable. It has also demonstrated a huge swelling capacity and appropriate mechanical properties. Besides, it possesses superior erythrocyte- and platelet-binding capacity, compared to other materials used in the rutinary clinical practice, providing it with extraordinary hemostatic properties.

INDICATION

The sponge-like scaffold has been developed for its use as a nasal pack for the treatment of epistaxis, also known as nasal bleeding. Due to its great haemostatic effect, its use may be extended to the treatment of other haemorrhagic wounds such as surgical wounds, trauma wounds and even chronic wounds with high fluid production.

NOVELTY/ADVANTAGE

The increasing necessity of developing new devices for medical applications has added a growing social need of being environmentally respectful. In this context, we developed this sponge-like scaffold using biopolymers obtained from industrial by-products. Revalorization of these by-products has come out to be a renewable and sustainable source of biomaterials that can be used for to manufacture scaffolds for biomedical applications, as an alternative to synthetic materials.

Furthermore, our device has shown intrinsic haemostatic properties, differing from commercialized nasal packs whose mechanism of action is purely mechanical.

Finally, it is worth mentioning that this sponge-like scaffold has been subject of a complete characterization, which is lacking in the scientific bibliography.

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IPR STATUS

Patent application:
EP22789191 y US18/691,129

Priority date:
15/09/2021

Applicant:
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COOPERATION GOAL

- Sponsored research
- Licensing-out
- New venture