



Medical Device

Kit for personalized management of enteroatmospheric fistulas through the combination of bioprinting and negative pressure therapy

A research group from the Andalusian Public Health System in collaboration with the University of Seville, has developed a kit that can be used in the management of the enteroatmospheric fistula for the local control of the intestinal content..



Description of the offer

The enteroatmospheric fistula represents one of the digestive fistulas with the highest clinical complexity. It has an approximate incidence of 10% of cases in which an open abdomen is established as treatment for peritonitis or compartment syndrome and up to 55% in patients with abdominal sepsis. It is associated with a high degree of morbidity and mortality, as well as a significant deterioration in the quality of life of patients. Its treatment is a challenge for the surgeon and involves a significant consumption of human and economic resources, as well as a prolonged hospital stay. The current treatment is based on the externalization of bodily effluvia that can contaminate the wound and favor its correct healing or granulation. Currently, there are some devices on the market but they do not take into account the great clinical variability that this type of fistula presents in terms of size, number of intestinal ends involved, etc. This is why a device capable of adapting to the needs of each patient is necessary.

The kit developed includes a device designed in a personalized way using 3D bioprinting based on the dimensions of the fistula. Said device makes it possible to form a structure around the fistulous orifice that allows the external flow of bodily effluvia, for example, by means of negative pressure therapy, while improving tissue granulation. The customization of the device solves the problem of being able to adapt to the specific characteristics of each enteroatmospheric fistula, in addition to allowing it to be reduced in size and confirm the wound is closed.



Advantages of the offer

1. It can be customized according to the characteristics of the wound of each patient. The adapter device can have different shapes and sizes depending on the size and number of fistulous holes that the patient presents.
2. Thanks to the shape of the kit adapter, there is more wound surface exposed to the polyurethane sponge of the negative pressure therapy, which will allow greater granulation of the tissue and, therefore, better healing.
3. It allows to comfortably adapt a colostomy bag that collects intestinal effluvia.



Intellectual Property

This technology is protected by a International patent application (PCT).



Aims

We are looking for a partner interested in a license and/or a collaboration agreement to further develop and exploit this innovative technology.



Classification

Area: Medical device

Pathology: Digestive System Fistula / General Surgery

