Medical Devices

Guiding device for ultrasound-guided puncture

A research group of the Andalusian Public Health System has developed a new disposable device that can be coupled to the transducer of an ultrasound machine to control the angle of insertion of the needle in an ultrasound-guided puncture procedure.

Oficina de TRANSFERENCIA DE TECNOLOGÍA
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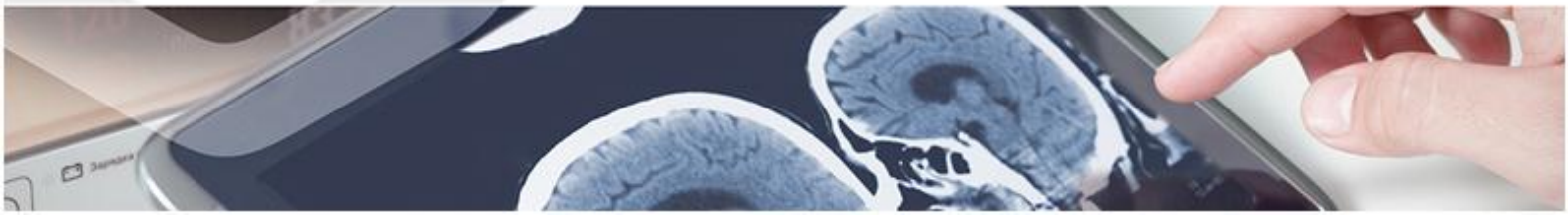

Description of the offer

In recent years, the field of application of ultrasound has been extended. Thus, more and more ultrasound is used to carry out interventions that go beyond simple diagnosis, such as echoguided punctures with different medical-surgical purposes such as biopsies, direct administration of drugs in certain areas or on tumor masses, anesthesia application or puncture-aspiration of cysts. Radiologists with extensive experience are able to perform echoguided punctures without the need for additional support. However, as explained, this technique has potential application to other medical disciplines where clinicians have no extensive experience. Trying to mitigate this problem, some needle guidance devices to be coupled to the transducer or ultrasound scanning device have been developed. These devices normally facilitate the puncture by guiding the needle in a constant angular position relative to the transducer during insertion into the patient's body. The angular position may be adjustable, but only before starting the puncture.

Our technology is a multi-angle guiding device for echoguided puncture which basically includes:

- Clamp: May have any configuration as long as it allows to carry out the described function. May be coupled to the distal end of the ultrasound probe, mainly by pressure.
- Needle guide element: Attached to the clamp via a connecting arm. This connection arm ensures a separation distance between one side of the ultrasound and the guide element, which improves the mobility and visibility of the needle.

Advantages of the offer

The present technology solves the above mentioned problems thanks to the fact that it has a guide element separated from a coupling clamp to the ultrasound probe and equipped with a curved support surface. Due to the curved shape of the supporting surface, the mobility of the needle is facilitated in a smooth and continuous manner. In addition, when the clamp is separated from the support surface, better mobility and visibility of the needle is ensured in comparison with other devices in which the needle is introduced practically tangent to the lateral surface of the ultrasound machine.

Intellectual Property

This technology is covered by a Spanish patent application with the possibility of international extension.

Objectives

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 Devices
Pathology: Oncology / Hematology; Cardiovascular and circulatory system; Digestive system; Musculoskeletal disorders; Other: Radiology, nephrology, anesthesiology, intensive care, etc ...

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