

Prostate palpation device for prostate cancer screening

DESCRIPTION OF THE TECHNOLOGY

Currently, prostate cancer is screened by prostate specific antigen (PSA) blood testing and digital rectal examination (DRE), which detects cancer in 18% of patients with normal PSA. This physical examination has a disadvantage of subjectivity, as it depends on the experience of the examiner and the apprehension of the patient.

The patented technology is a device for prostate palpation as a prostate cancer screening method. It is composed of a palpation system that transforms the collected information into objective, reproducible and useful, allowing the generation of a map of stiffness, reaching the entire peripheral area of the prostate in a short time and with a less aggressive performance than DRE.

MARKET APPLICATION SECTORS

The technology is applicable for the screening of prostate cancer, and can be used, in addition to Hospitals, in Primary Care Centers since it does not require the experience of a Urologist for its use.

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

- Objective assessment of the peripheral zone of the prostate, compared to the current subjective assessment by DRE.
- Efficient screening of patients susceptible to suffer prostate cancer.
- Cost savings due to adequate referral of patients with suspected prostate cancer from primary care to the urology specialist.

CURRENT STATE OF DEVELOPMENT

A prototype of a hand-held electronic instrument with sensors and associated signal recording software is currently being designed. It has been evaluated in vitro in soft tissues with artificial prostate phantoms and real prostate tissues removed from cancer patients, with very satisfactory results. Work is underway to complement the prototype with the addition of ultrasound sensors that identify the prostate anatomy and allow to recognize the location and nature of suspicious areas ruling out prostatic calcifications. .

INTELLECTUAL PROPERTY RIGHTS

National Patent P202130115, dated February 15, 2021, jointly owned by the Valencia Institute of Biomechanics, the Polytechnic University of Valencia and the Higher Center for Scientific Research (CSIC).

Title: Prostate palpation device.

COLLABORATION SOUGHT

The inventors are seeking investors and companies interested in licensing the technology, as well as strategic partners and new sources of funding to advance development, prototyping and clinical validation.

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RELATED IMAGES



Image 1. Prostate palpation device

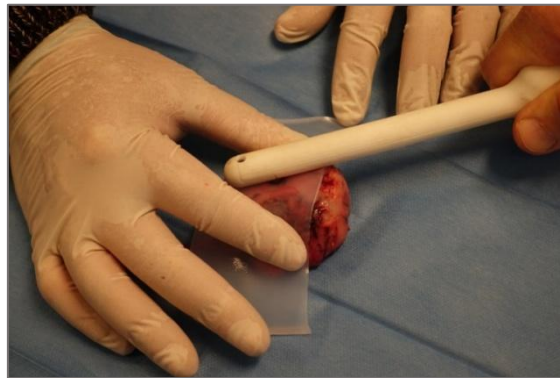


Image 2. Device palpating a prostate in real prostate tissues

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