

ABSTRACT

A medical apparatus (10) for prostate biopsy or radioactive particle implantation comprising: a scanning and puncture assembly (4) comprising: an ultrasound probe (7) having an internally rotatable ultrasonic transducer (72) within a predetermined angular range to capture a series of sequential ultrasonic images in 3-spatial dimensions, a needle (8) for biopsy or for radioactive particle implantation; a puncture control module (42) to adjust an insertion angle of the needle (8); and a depth positioning module (43) to adjust the insertion depth of the needle (8); a support assembly (3) to support the scanning and puncture assembly (4) at a predetermined position relative to a patient; and computer executable instructions configured to control the scanning and puncture assembly (4) including the adjustment of the insertion angle and the insertion depth of the needle (8) according to a predetermined biopsy path.

Fig. 1