ABSTRACT

CURVED SURGICAL INSTRUMENTS AND METHOD OF MAPPING A CURVED PATH FOR STEREOTACTIC SURGERY

The method of mapping a curved path for stereotactic surgery involves the selection of a helical-shaped path. The first step is to obtain an accurate image of the pertinent structures of the patient's internal areas. The image includes the lesion or target region and a potential opening site. Using the image, the non-target areas surrounding the lesion area are determined and evaluated for the medical acceptability of passing through them. A curved path which is substantially helical in shape is then selected within the image such that the curve avoids these non-target areas but intersects the target region and the opening site. The corresponding surgical instrument which will be used to follow the selected curved path has a rigid body having a shape which is substantially identical to the path.

Fig. 5

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