

Applicator for Medical Thermotherapy

Reference Number: TO 32-00003

Challenge

Surgical interventions under real-time MRI control (magnetic resonance imaging) require MRI compatible tools and instruments. Especially in spinal surgeries in combination with open MRI systems patients and surgeons could benefit significantly if there were compatible instruments available. In the following an innovative MR compatible applicator for percutaneous intradiscal therapies (PITT) is presented.



Innovative MR compatible applicator for percutaneous intradiscal thermotherapy

desired region inside the spinal disk. Through the inner cannula an optical fiber or a radio frequency emitter can be inserted to apply laser or radio frequency energy to the tissue for thermal treatment of the spinal disk. The whole applicator is manufactured from MRI compatible materials to allow the overall procedure to be performed under real-time visual MRI control in an open MRI set-up.

Commercial Opportunity

The technology is available for in-licensing or co-development.

Developmental Status

Prototypes of the applicator have been produced and tested in cadaver studies.

Patent Situation

A priority claiming international PCT patent application, WO2013/131577, was filed 2013.

Further Reading

„Perkutane intradiskale Thermotherapie (PIT) im offenen 1.0 Tesla MRT – Evaluierung einer innovativen Methode zur Behandlung degenerativer Bandscheibenerkrankungen.“; T. Leidenberger, C. Philipp, J. Rump, K. Hauptmann, T. Walter, B. Hamm, U. Teichgräber, F. Streitparth; Fortschr. Röntgenstr 2012; 184 - WI_PO24



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