HOW RADIOFREQUENCY TREATMENT RELIEVES CHRONIC KNEE PAIN

1. Genicular nerves transmit pain signals from the knee joint.

2. A needle is inserted at each treatment site. Stimulation is used to locate the nerve.

3. Radiofrequency current heats nearby nerve tissue.

4. Pain signals are blocked.

Boston Scientific
Advancing science for life™

Boston Scientific Pty Ltd
PO Box 332
Botany NSW 1455
Australia
Tel: +61 2 8063 8100

NM-2035017-AA NOV 2024

Boston Scientific
Advancing science for life™

RADIOFREQUENCY PAIN MANAGEMENT

for Chronic Knee Pain

PAIN MANAGEMENT WITH RADIOFREQUENCY

Chronic knee osteoarthritis (OA) is a painful disorder common among adults of advanced age.[1]

Radiofrequency (RF) technology is designed to treat your knee pain through an outpatient procedure and allow you to return to your normal activities.

RADIOFREQUENCY TREATMENT

Radiofrequency ablation (RFA) is a clinically effective means of interrupting pain signals, such as those coming from irritated genicular nerves in the knee.[1,2] Radiofrequency current is used to heat up a small volume of nerve tissue, thereby interrupting pain signals from that specific area.[3]

Radiofrequency Ablation (RFA) Therapy is a clinically simple and effective treatment for chronic pain originating from the knee.[1,3,4] RFA is also known as denervation or thermocoagulation. Your doctor can determine if RFA treatment is right for you.

DURING THE PROCEDURE

A radiofrequency nerve ablation procedure is performed by a doctor in a treatment room setting. Both local anaesthesia and a mild sedative may be used to reduce discomfort during the procedure.

During the procedure you will be lying on your back with a pillow under your leg. Your doctor will insert several small needles in your knee. Using x-ray imaging, the doctor will guide the needles to the treatment locations near the joint. Electrodes are inserted through the needles to stimulate nearby sensory and motor nerves. During stimulation, your doctor will ask if you are able to feel a tingling sensation. The object of stimulation is to determine the optimal treatment locations for pain relief.

Once the needle and electrode placement is verified, a small RF current will travel through the electrodes into the surrounding tissue, which is designed to cause the tissue to heat and interrupt pain signals. You should alert your doctor if you experience discomfort at any time during the procedure.

Your doctor will treat more than one location during the same procedure to minimise treatment time.

This pamphlet is for general education only. All medical questions and concerns should be addressed with your doctor. Your doctor can explain possible outcomes of treatment including risks and side effects.

AFTER THE PROCEDURE

You may experience some soft tissue discomfort at the needle placement sites following the procedure. Like other soft tissue wounds, the discomfort should subside over several days or weeks. If there are no complications, the procedure can usually be done on an outpatient basis.

Your knee pain should subside over the next several weeks. Radiofrequency treatment of nerves usually blocks pain signals for a prolonged period of time.[1,3] The procedure can be repeated if the nerves regenerate and your pain returns.

Radiofrequency treatment is designed to not limit your daily activities. Physical restrictions you had prior to the procedure may still remain. As with any medical procedure, there are certain risks involved. Please ask your doctor for details regarding the potential risks with radiofrequency ablation and what activities are appropriate after radiofrequency treatment.

Ask your doctor about pain treatment with radiofrequency equipment.

1. Choi WJ. Radiofrequency treatment relieves chronic knee osteoarthritis pain: a double-blind randomised controlled trial. Pain 2011;152: 481-7.

2. Bhatia A1, Peng P, Cohen SP. Radiofrequency procedures to relieve chronic knee pain: an evidence-based narrative review. Reg Anesth Pain Med. 2016 Jul-Aug;41(4):501-10.

3. Ikeuchi M. Percutaneous radiofrequency treatment for refractory anteromedial pain of osteoarthritic knees. Pain Medicine 2011;12(4): 546-51.

4. Jamison DE, Cohen SP. Radiofrequency techniques to treat chronic knee pain: a comprehensive review of anatomy, effectiveness, treatment parameters, and patient selection. J Pain Res. 2018 Sep 18;11:1879-1888.