

Microvascular Decompression

University Neurosurgery Information Sheet

General indications for the procedure:

In situations where vessels may be putting pressure on nerves, a microvascular decompression (MVD) is used, in which a small skull opening is typically made behind the ear to gain access to the nerves that are causing face pain or face spasms. Then, under the microscope, the physician searches for the vessels that may be putting pressure on the nerves so that a small cushion can be placed in order to minimize the pulsations of the vessel onto the nerve.

Description of the procedure:

After the patient is put to sleep with the help of the anesthesiologist, the area behind the ear on the affected side is shaved and marked. A scalp incision is then made to expose the bone that will be opened. Then, under the microscope, the surgeon moves around the brain to find the nerves that may need to be relieved from the vessel pulsations believed to be causing the pain/spasms. Finally, the small piece of bone is re-attached back in place at the end of surgery.

Risks of the procedure:

Risks include, but are not limited to: Facial paralysis, deafness, facial numbness, tinnitus, vertigo, infection of spinal fluid with or without bacteria, persistent facial pain with possible need for re-operation, pain coming back, leakage of spinal fluid through incision and/or into ear/nose, need to re-operate to address fluid accumulation under the skin, body paralysis from brain stem involvement, difficulty walking (ataxia), pain, infection of incision, seizures, coma, and death. If for facial spasms, persistent or recurrent facial spasms may continue despite an uneventful decompression.

Procedure alternatives, if any:

Depending on different factors that ought to be discussed with the patient's neurosurgeon, the treatment of facial pain can also be done via radiosurgery (radiation treatment) and/or percutaneously (i.e. with a needle advanced near the patient's mouth so that the nerve causing the pain can be numbed).

Probable consequences of refusing procedure:

Pain is likely to persist if the surgery is not performed.

Person(s) performing the procedure:

The surgical team for this procedure is large. This involves, but is not limited to, the attending surgeons, resident surgeons, surgical nurses, physician assistants, surgical technologists and anesthesiologists. Everyone involved will be performing important tasks related to the surgery in accordance with the hospital policies, and based on their skill set and under the supervision of the responsible practitioners.