Cost effectiveness in surgical treatment for trigeminal neuralgia

Increasing costs of healthcare call for rational approaches based on cost-effectiveness of the surgical procedures. When treating trigeminal neuralgia, therapeutic options vary widely as does their cost. We have compared microvascular decompression (MVD), radiofrequency rhizotomy (RFR), percutaneous balloon compression of the Gasser ganglion (PBC) and gamma knife rhizotomy (GKR) for length of stay, cost of the stay, of the procedure, of disposable material and of specific hospital investments. This was compared to the immediate and long-term (>5 years) efficacy of the procedures. The evaluated total cost were 1,014 <euro> for PBC and RFR, 3,360 <euro> for MVD with a 2-day hospital stay, 4,560 <euro> for MVD with a 5-day hospital stay, and 3,424 <euro> for GKR. In addition, RFR requires investing in a generator (10,000 <euro>) and GKR requires a gamma knife suite (3,000,000 <euro>). MVD, PBC and RFR allow immediate relief of the pain, GKS having a more progressive effect. Long-term results, however, are comparable, all techniques having at least a 25% recurrence rate between 5 and 10 years postoperatively. Although all surgical techniques allow pain relief in trigeminal neuralgia, from an economical point of view, percutaneous techniques are more cost-effective than MVD and GKR. They should be considered as the first therapeutical option, keeping the more expensive procedures for percutaneous treatment failures or for medically justified indications [1)].

1)

Fransen P. Cost-effectiveness in the surgical treatments for trigeminal neuralgia. Acta Neurol Belg. 2012 Sep;112(3):245-7. doi: 10.1007/s13760-012-0095-0. Epub 2012 Jun 9. PubMed PMID: 22684920.

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