

INTRODUCTION TO GREATER OCCIPITAL NERVE BLOCKS AND SUBOCCIPITAL BLOCKS

The authors have divided this description into two types of blocks:

1. Greater occipital nerve blocks.
2. Suboccipital blocks.

1. Greater occipital nerve block refers to blockade of the greater occipital nerve.
2. Suboccipital block refers to blockade of structures surrounding and including the greater occipital nerve. The surrounding structures include some or all of the following depending on technique: first occipital nerve, third occipital nerve, superior cervical sympathetic fibres, suboccipital muscle fibres and/or tendinous insertions.

In the experience of the authors suboccipital blocks often relieve headaches and neck aches not relieved or only partially relieved by greater occipital blockade. There is no literature on this differentiation, nor is the literature on greater occipital nerve block clear as to whether the blocks described were pure greater occipital nerve blocks or were suboccipital blocks.

This differentiation is important for diagnostic purposes.

It is understood that Bogduk et al will be studying this phenomenon. (Personal communication).

Greater occipital nerve blocks and especially suboccipital blocks are remarkable in that about 80% of severe intractable headache conditions (regardless of type of headache) can be relieved from hours to days by these blocks. The mechanism is presumed to be due to the anatomical convergence of the C2 fibres with fibres of the spinal trigeminal nucleus (see below for further explanation).

What is less well understood is that headaches which can after investigation be shown to be due to facet joint disease and/or disc disease, can be relieved even when the innervation of those facet joints or discs, is clearly rostral to the C2 or C3 nerves e.g. a case of C5-6 discotomy for radicular pain was also reported to relieve the headache (Headache 1991). This may be due to fibres from lower cervical segments ascending to the C2 levels and thence entering the spinal cord.

Furthermore, neck aches associated with these headaches are often relieved by greater occipital nerve or suboccipital blocks. Here again, the explanation is unknown.