Scalp block is quite indispensable for an awake craniotomy. The branches of cranial nerves blocked are supratrochlear, supraorbital, auriculotemporal, greater and lesser occipital, great auricular, zygomatic and infraorbital nerves. Local anesthetic (40-60 mL) with epinephrine assures long duration of block. Large volume of local anesthetic and well-vascularized areas predispose to anesthetic toxicity hence individual nerve blocks are preferred over wide areas of infiltration to decrease probability of LA toxicity. The use of adrenaline (5 μ g/mL, 1:200 000 dilution) both minimizes acute rise in plasma concentration and maximizes the duration of the block. Clinical hyper vigilance is particularly indicated within the first 15 min after scalp block.

Bupivacaine is still the most commonly used local anesthetic but ropivacaine and levobupivacaine appear to be safer than bupivacaine.

In awake-awake-awake technique 28 ml ropivacaine 0.75% with epinephrine 1:200000 and 9 ml of a 1:1 mixture of ropivacaine 0.75% and prilocaine 1.0% at pin sites was used to avoid delay to full effect of the scalp block.

Better hemodynamics and less antihypertensive medication: Comparison of scalp block and local infiltration anesthesia for skull-pin placement in awake deep brain stimulation surgery ¹⁾.

Evidence

There is high-quality evidence that Nonsteroidal antiinflammatory drugs reduces pain up to 24 hours postoperatively. The evidence for reductions in pain with dexmedetomidine, pregabalin or gabapentin, scalp blocks, and scalp infiltration is less certain and of very low to moderate quality. There is low-quality evidence that scalp blocks and dexmedetomidine may reduce additional analgesics requirements. There is low-quality evidence that gabapentin or pregabalin may decrease nausea and vomiting, with the caveat that the total number of events for this comparison was low².

1)

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