IRB RECOMMENDATIONS ON THE TREATMENT OF POSTDURAL PUNCTURE HEADACHES IN RESEARCH PROJECTS INVOLVING HUMAN SUBJECTS

Not infrequently, the IRB reviews protocols that call for the administration of intrathecal medications or the withdrawal of CSF. Anytime the dura is punctured, the subject runs the risk of developing a postdural puncture headache (PDPH). The IRB would like to offer guidelines to prevent and treat this complication.

PREVENTION

1. Use a small gauge (g) needle (24 g or smaller) if possible. Studies have demonstrated the relationship between the size of needle used and the risk of PDPH. Large bore needles (size 22 g and larger) have a higher incidence of PDPH. This ranges from 10-20% with 22 g needles to as high as 75% with 17 g needles.

2. Use a pencil point needle (Sprotte) if possible. Needles that cut the dura (such as with a Quincke needle) have a higher incidence of PDPH. Pencil point needles spread the fibers of the dura without actually cutting them and lead to a lower incidence of PDPH.

TREATMENT

If the patient actually develops PDPH, the following can be tried.

<u>FIRST 24 HOURS:</u>

1. Encourage fluid intake.
2. Encourage the supine position as much as possible.
3. Prescribe oral analgesics:
    a. NSAIDs
    b. Mild opioids (i.e., Vicodin, Tylenol #3, Lortab)

<u>SECOND 24 HOURS:</u>

If the PDPH persists after the above measures have been taken, the following can be tried:

1. Caffeine 500mg in one liter of ringers lactate administered over 4 hours.
2. Start Aminophylline 100 mg po BID.
3. Continue oral analgesics.

<u>THIRD 24 HOURS:</u>

If the PDPH headache persists beyond 48-72 hours, a consultation with Anesthesiology should be obtained for a possible epidural blood patch. This technique has a greater than 95% chance of resolving headache. For further information, the Committee suggests contact Mark S. Wallace, M.D., (x37336) in the Department of Anesthesiology for consultation.

[PDHD.HS] 4/13/97