There appears to be no published correlation between plasma drug concentrations and dynamic effects (such as drowsiness). However, McBride and co-workers concluded that maternal concentrations of 30-40 ng ml⁻¹, although providing adequate analgesia, did not have a pronounced soporific effect upon the mother, nor did they have any effect on the neuro-behavioural responses of the newborn.

We would therefore conclude that oral premedication with lorazepam in breast feeding mothers would appear to be safe.

R. J. SUMMERFIELD
M. S. NIELSEN
Oxford

REFERENCES


FIXATION OF EXTRADURAL CATHETERS

Sir,—Fixation of extradural catheters by subcutaneous tunneling (Carl, Crawford and Ravlo, 1984) is a satisfactory method which I have also used.

I have developed a simple modification that makes this method easier and quicker. The tunneling is performed using a 15-cm long 16-gauge (Longdwel B-D) intravenous cannula. The cannula (plus needle) is inserted through the skin, after a weal is raised 15 cm lateral to the insertion site (incision in the skinline should be made before the extradural catheterization); local anaesthesia of the tunnel is performed while the cannula is advanced under the skin, a syringe filled with local anaesthetic being attached to the needle. Once the insertion site is reached, the needle is withdrawn and an extradural catheter is passed through the cannula—which is removed at the end of the procedure. This procedure is repeated until the desired site is reached. With this modification the length of the tunnel is shorter: the iliac region is reached with a couple of tunnellings (the catheter needle can be bent during the insertion to follow the curves of the patient); local anaesthesia is quickly accomplished during the insertion of the catheter needle. The only disadvantage over the traditional technique is probably the cost.

A. CAMPAILLA
Trieste, Italy

REFERENCE


ANTAGONISM OF NEUROMUSCULAR BLOCKADE

Sir,—Several workers have shown that glycopyrrolate has advantages over atropine when used with neostigmine for reversal of neuromuscular blockade. It causes less tachycardia (Klingenmaier et al., 1972; Ramamurthy, Shaker and Winnie, 1972; Mirakhur, Dundee and Clarke, 1977; Osthheimer, 1977; Cozanitis et al., 1980; Bali and Mirakhur, 1980) and has a longer duration of action (Ramamurthy, Shaker and Winnie, 1972; Cozanitis et al., 1980). Most workers have studied combinations using neostigmine 2.5 mg. There are no reports following neurosurgical operations, where it is the normal practice in our hospital to use neostigmine 5 mg, when large doses of neuromuscular blockers have been used. We compared atropine 1.8 mg and glycopyrrolate 1 mg given with neostigmine 5 mg in the antagonism of neuromuscular blockade following various neurosurgical operations.

One hundred and ninety-one patients aged 16-78 yr (mean 53 yr) were studied. The anaesthetic technique was not standardized, but usually consisted of thiopentone, suxametho-

<table>
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<th>Plasma</th>
<th>Milk</th>
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<tr>
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</tr>
<tr>
<td>54</td>
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<td>35</td>
<td>9</td>
</tr>
<tr>
<td>35</td>
<td>8</td>
</tr>
</tbody>
</table>

% Plasma concentration
23.7
14.8
25.7
22.9

TABLE I. Free lorazepam concentrations (ng ml⁻¹)

REFERENCE