stered lignocaine (1 mg/kg) or phenytoin sodium (3.5 mg/kg over 5 minutes) can be used. Convulsions are rare, as in our case, and require higher doses of phenytoin. Anti digoxin antibody fragments (Fab) to the drug (digibind) is highly effective and is used in severe toxicity, especially if no response is noted to antiarrhythmic agents(7). However, digibind is expensive and is not routinely available to us.

In conclusion, double checking of drug dose calculations should be practised, close monitoring and prompt correction of metabolic and ECG abnormalities while withholding the drug is sufficient in early cases. Whereas phenytoin sodium is effective in correcting the arrhythmia in most patients, digibind may be required in more severe cases.

Acknowledgement

The authors thank Dr. T.F. Ashaavaid, Department of Biochemistry, P.D. Hinduja Hospital, Bombay for estimating serum digoxin levels.

REFERENCES


Nifedipine in Urticaria

H.A. Joshi
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The efficacy of nifedipine, a calcium channel antagonist in the treatment of chronic idiopathic urticaria in adults is documented(1,2). This study was done to assess the efficacy and safety of nifedipine in children with giant urticaria and angioneurotic edema.

Subjects and Methods

Six children with giant urticaria and 2 children with angioneurotic edema were the subjects for this study. An informed oral consent was obtained from the parents/guardians of the child. A 5 mg capsule of nifedipine was punctured with a needle and approximately half of its con-

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**TABLE I—Summary of Cases**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Age (yrs)</th>
<th>Diagnosis</th>
<th>Relief in Redness</th>
<th>Relief in Swelling</th>
<th>Time Needed (min)</th>
<th>Temp (F)</th>
<th>Pulse</th>
<th>R.R</th>
<th>B. P. (mm Hg)</th>
</tr>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td>A</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>G.U.</td>
<td>Less</td>
<td>Less</td>
<td>60</td>
<td>N</td>
<td>N</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>G.U.</td>
<td>Less</td>
<td>Less</td>
<td>30</td>
<td>101</td>
<td>102</td>
<td>152</td>
<td>168</td>
</tr>
<tr>
<td>3</td>
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<td>G.U.</td>
<td>Less</td>
<td>Less</td>
<td>30</td>
<td>No Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>G.U.</td>
<td>Less</td>
<td>Less</td>
<td>30</td>
<td>No Change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>G.U.</td>
<td>Less</td>
<td>Less</td>
<td>30</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>G.U.</td>
<td>Less</td>
<td>Less</td>
<td>10</td>
<td>No Change</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>7</td>
<td>A.E.</td>
<td>Less</td>
<td>Less</td>
<td>30</td>
<td>No Change</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>A.E.</td>
<td>Less</td>
<td>Less</td>
<td>30</td>
<td>No Change</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

G.U. = Giant urticaria; A.E. = Angioneuratic edema; R.R. = Respiratory rate; B = before, A = After.

tents (about 2.5 mg) were applied to the tongue of the child, drop by drop over a few minutes. All children were monitored for half an hour in the clinic. Thereafter 2.5 mg of oral nifedipine was prescribed three times daily. Children were examined daily till they had relief.

**Results**

The swelling and redness significantly reduced in 30 minutes in all the cases. *(Table)*. None had hypotension, tachycardia, headache or giddiness. A six-year old child who also had upper respiratory infection and 101°F fever had a blood pressure of 120/40 mm Hg. After giving nifedipine it reduced to 90/40 mm Hg. All children were fully cured in three days.

**Discussion**

Nifedipine safely reduced the swelling and the redness in the giant urticaria and angioneurotic edema in less than 30 minutes in children. No adverse effects were documented in any case. The conventional injection adrenaline dramatically relieves angioneurotic edema and giant urticaria. However, sublingual nifedipine acts equally fast, needs no sterile syringe and saves the child from the pains of an injection and other side effects of adrenaline like tachycardia, tremors, etc. Sublingual nifedipine could conceivably replace injection adrenaline as drug of choice for this indication. However, further studies of a similar nature are desirable.

**REFERENCES**
