types than girls and there is a steep social gradient in child accident fatalities. Effective prevention requires concerted efforts by individuals, organizations and industries to increase the safety of homes, schools and streets. Safety features that conform to British standards, for example, spark guards and nursery fire guards, electrical circuit breakers, thermostatic limitation on tap water temperature and smoke alarms, can be fitted in most houses, supported, if necessary, by legislation. Although the latter is no guarantee of domestic safety, it at least provides some protection for the most vulnerable members of society.

So what more can be done? It is time for each Health District to develop a new preventative strategy based on local data. Health Authority managers, through their community physicians and information officers with the help of local authorities, will have access to local epidemiological data of childhood accidental injuries. Computerization of A&E records will make it possible for a detailed epidemiological picture of the incidence of child accident injuries to be built up. Childhood accident prevention should then be put firmly on each Health Authority agenda as a continuing problem, requiring regular evaluation and monitoring. Concurrently, health visitors should be encouraged to promote accident prevention within families, since people tend to respond best to simple specific advice that is directly relevant to their own homes. The advantage of local action lies in the possibility of directly affecting policies and priorities by raising public awareness, educating parents and children, and heightening individuals’ and the community’s sense of responsibility to care for and protect children. It is time for health professionals to spend as much time and effort on preventing childhood accidents as they do on treating them. The new Children Act has improved, if not revolutionized, the rights of each child in our society. This offers little protection against the hostile environment in which they grow.

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REFERENCES

Passive digit hyperextension in the diagnosis of flexor tendon injuries

The clinical diagnosis of flexor tendon injuries requires active patient cooperation and may be difficult, especially if the patient is under the influence of alcohol or other drugs, mentally retarded, or in severe pain. Also it may be difficult to assess children and those with whom the examiner cannot communicate because of language problems.

I wish to describe a simple clinical test which I find useful in the diagnosis of acute flexor tendon injuries and does not require active patient cooperation.

I have applied this test on 33 consecutive patients with wounds on the volar wrist, palm or fingers of the hand in whom there was doubt about the presence or absence of flexor tendon injury when first seen. The test consists of gently and passively hyperextending the PIP and DIP joint of each finger being tested and, in the case of the thumb, the IP joint. Flexor tendon injury was diagnosed whenever there was alteration in tone on passive hyperextension as compared with the uninvolved digits in either the same or opposite hand. A characteristic sensation of easy giving was elicited on gentle extension of the joint being tested from its resting position.

This did not imply an increased range of hyperextension at this joint, just an alteration in resting tone. The results are shown in Tables 1 and 2.

The tone in any joint depends on the contractile state of opposing muscle groups. Normally when the joint is stretched passively in one direction the musculotendinous unit opposing this action contracts. If the musculotendinous unit is injured this contraction is impaired which produces an alteration in tone. As alluded to above, active flexion testing is not always reliable. The resting posture of the digits involved may not be altered with isolation injuries of FDS or partial flexor tendon injuries. A tenodesis test, in which passive wrist extension is accompanied by digital flexion, is often unreliable in assessing zone I injuries.

I suggest adding this test to the armamentarium when faced with assessment for possible flexor tendon injury.

Table 1. Flexor injuries

<table>
<thead>
<tr>
<th>Site of injury</th>
<th>Number of patients</th>
<th>Volar plate intact</th>
<th>Volar plate damaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone I</td>
<td>2</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>Zone II</td>
<td>7</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 2. Results from passive hyperextension test

<table>
<thead>
<tr>
<th>Site of injury</th>
<th>Flexor injury (confirmed at operation)</th>
<th>Intact flexor (confirmed at associated nerve injury)</th>
<th>(confirmed at 1-week follow-up)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone I</td>
<td>6</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Zone II</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Zone III</td>
<td>7</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Zone IV</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Zone V</td>
<td>10</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Nine patients were shown to have evidence of calculus on the IVU of which eight out of eight dipstick tests were positive for blood and four out of five urine microscopies were positive. Eight cases had evidence of calculus on plain abdominal radiograph and did not have an emergency IVU, of those, seven out of eight dipsticks were positive and four out of five microscopies were positive.

There were 10 patients who either had no evidence of calculus on abdominal radiograph or had a negative IVU or ultrasound. Surprisingly in this group only two out of six dipsticks were negative and two out of six microscopies were negative. Only one of these patients was later proved to have had a urinary tract infection on culture, having a positive dipstick and negative microscopy.

The above small retrospective study indicates that microscopy is no more specific or sensitive than dipstick urinalysis in producing positive results for haematuria in patients who are shown to have evidence of calculus on IVU, ultrasound or abdominal radiograph. Using chemstrip 9 and N-Multistix, Moore & Robinson found that these dipsticks had an overall sensitivity of 100% and specificity of 99.3% in the detection of microhaematuria. Kennedy et al. found the urinary dipstick to be a safe, accurate and reliable screening test for the presence of haematuria in patients sustaining abdominal trauma. The evidence seems to indicate that urgent urine microscopy is not necessary in cases of renal colic although all patients should have urine sent for culture. Urinalysis is a simple, cheap, quick and easy test to perform in an A&E department. Microscopy is more expensive although difficult to price accurately. A prospective study into the manage-

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Renal colic and examination of the urine in the accident and emergency department

Examination of the urine is a routine investigation in patients presenting to the accident and emergency (A&E) department with a suspected urinary calculus. However, there appears to be little agreement on whether urgent microscopy should be performed routinely or if dipstick urinalysis is sufficient.

Haematuria is associated with the presence of urinary calculi and may be extremely useful in helping to make the diagnosis before intra-venous urogram (IVU) or ultrasound examination is carried out.

In a retrospective study of 33 patients presenting to the Westminster hospital A&E department who were diagnosed as having a urinary calculus by the A&E senior house officer 26 (79%) patients had a dipstick urinalysis and 19 (58%) had urine microscopy. Dipsticks used were Boehringer Mannheim BM-Test 5L and microscopy was with a X32 magnification inverted microscope.

Of 14 cases having both urinalysis and microscopy there were three cases of positive dipsticks and negative microscopy and one case of a negative dipstick and positive microscopy.