Head injury transfers: arm of greatest delay

In patients with suspected head injuries, the immediate purpose of a specific diagnosis is to determine which patients need an emergency or urgent neurosurgical operation. The teaching is that within two hours of injury, an urgent neurosurgical operation. The study raises some questions:

- Why see the scans images before sanctioning a transfer? Are there concerns relating to the radiologist’s interpretation of the scans?
- Should it be a matter of policy that all isolated severe head injuries (GCS <8) be taken directly to the neurosurgical centres?

A two year review of laryngeal mask use by the Warwickshire ambulance service

In 2001 the Warwickshire Ambulance Service introduced disposable laryngeal mask airways (LMA, Laryngeal, Intavent Orthofix, Maidstone, UK) aiming to improve airway care by providing paramedics with an alternative device after failed intubation, and giving technicians an alternative to the bag-valve-mask. In April 2003 we analysed the computerised record database and surveyed all paramedics and technicians to investigate LMA use over the previous two years.

Patient data

We searched the database for details about patients who had a LMA inserted during their care. The individual case report forms for these patients were reviewed when available. In 70 patients LMA placement was attempted, 61 (87%) placements had been recorded as successful. LMA insertion was recorded as successful in 24 of 25 (96%) patients when a technician attempted placement and 37 of 45 (82%) patients when a paramedic attempted placement. Intubation had failed in 29 patients and in 26 (89%) of these a LMA was successfully used to manage the airway (table 1). During this period there were 382 attempts at endotracheal intubation with 85% success. Although primarily used in cardiac arrest (49 cases), LMAs were also used in “other medical” patients (seven cases) and trauma (six cases), with eight missing records. In three road trauma cases a LMA provided a clear airway when access was otherwise impossible. On nine occasions a functioning LMA was subsequently replaced by an endotracheal tube before arrival at hospital. In seven of these instances no clear reason was recorded.

Staff survey

A total of 134 staff surveys were returned (85% response). These questionnaires showed that 42 (36%) had never used an LMA in clinical practice, 52 (39%) had used a LMA once or twice, 34 (25%) staff had used the LMA three to five times, and six (4%) had used the device on more than six occasions.

We asked whether any patients who had received a LMA had been subsequently intubated before arrival at hospital. Of the 40 positive answers, 25 responses stated that the LMA was removed because of “operator preference” (23 paramedic, 2 doctor). The other responses to this question included six problems with ventilation and eight problems with securing the device.

Reference


Table 1

<table>
<thead>
<tr>
<th>Laryngeal mask airway</th>
<th>Number attempted placements</th>
<th>Number achieved successful ventilation</th>
<th>Success rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>70</td>
<td>61</td>
<td>87</td>
</tr>
<tr>
<td>After failed intubation</td>
<td>29</td>
<td>26</td>
<td>89</td>
</tr>
<tr>
<td>Paramedic attempts (total)</td>
<td>45</td>
<td>37</td>
<td>82</td>
</tr>
<tr>
<td>Technician attempts (total)</td>
<td>25</td>
<td>24</td>
<td>96</td>
</tr>
</tbody>
</table>

Contributors

KP, IT, JT, and MW conceived the idea for the study. MW, IT, and JT designed the questionnaire. KP and JT collected the data. KP wrote the paper. The paper was discussed, revised, and edited by KP, IT, JT and MW. MW is the guarantor of the paper.

K Pattinson
Department of Anaesthesia and Intensive Care Medicine, The University of Birmingham, Queen Elizabeth Hospital, Birmingham, UK

I Todd
Centre for Primary Health Care Studies, University of Warwick, Coventry, West Midlands, UK

J Thomas
Warwickshire Ambulance Service, Leamington Spa, Warwickshire, UK

M Wyse
Warwickshire Ambulance Service, Leamington Spa, Warwickshire and University Hospitals NHS Trust Coventry and Warwickshire, Coventry, West Midlands, UK

Correspondence to: Dr K Pattinson, kyletp@postmaster.co.uk

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painful right shoulder one hour earlier. The acupuncture treatment to his longstanding climb the stairs at home shortly after. Faintness, syncope, and needle breakage. The most common adverse events were considered but serious events were rare. The style of acupuncture entails insertion into the subcutaneous tissues, while the Japanese style acupuncturists tend to insert needles deeply into the muscles, while the Japanese style. Recent systemic reviews of the adverse events associated with acupuncture concluded that minor adverse events may be uncommon in patients receiving such therapy. We feel that this case shows the potential serious adverse events associated with acupuncture and must be thought of in patients receiving such therapy.

K Saifeldeen, M Evans
Department of Accident and Emergency, Princess of Wales Hospital, Bridgend, South Wales, UK
Correspondence to: Dr K Saifeldeen; knsaifeldeen@btinternet.com
doi: 10.1136/emj.2003.006049

References
5. Acupuncture associated pneumothorax
A 31 year old man attended our accident and emergency department complaining of shortness of breath and right chest pain on climbing the stairs at home shortly after acupuncture treatment to his longstanding painful right shoulder one hour earlier. The acupuncture included needle insertion to the right scapular region, one of the needles caused sharp pain on insertion. The patient had no significant medical history and he never smoked.

On examination, he was not in any distress and his vital signs were normal. Examination of the chest suggested reduced air entry in the right apex but was otherwise normal. An erect PA chest radiograph showed a 5% right apical pneumothorax. The patient was discharged home with pneumothorax advice and a one week follow up chest radiograph was arranged but the patient failed to attend as he was asymptomatic.

Acupuncture is among the most popular of all complementary or alternative therapies. It is an invasive therapy and it is not free from risks for the patient. The style of acupuncture differs between cultures. The Chinese style acupuncturists tend to insert needles deeply into the muscles, while the Japanese style entails insertion into the subcutaneous tissues.

Faintness, syncope, and needle breakage were uncommon. In Japan it is not a rare practice to intentionally break and permanently retain needles with risk of needle migration and organ damage. Pneumothorax was rare, occurring only twice in nearly a quarter of a million treatments, it is estimated that a pneumothorax would be expected to occur once in every 41 years of full time practice. Cases of bilateral pneumothoraces including bilateral tension pneumothoraces have been reported. Other serious events such as spinal cord injury, hepatitis B, fatal bacteraemia, delayed cardiac tamponade, haemothorax, and pseudoaneurysm seem to be uncommon in standard practice performed by adequately trained acupuncturists.

We feel that this case shows the potential serious adverse events associated with acupuncture and must be thought of in patients receiving such therapy.

K Saifeldeen, M Evans
Department of Accident and Emergency, Princess of Wales Hospital, Bridgend, South Wales, UK
Correspondence to: Dr K Saifeldeen; knsaifeldeen@btinternet.com
doi: 10.1136/emj.2003.006049