Cervical plexus block for thyroidectomy

IK Kolawole
Consultant Anaesthetist, Department of Anaesthesia, University of Ilorin Teaching Hospital, Ilorin, Nigeria.

GA Rahman
Consultant General Surgeon, Department of Surgery, University of Ilorin Teaching Hospital, Ilorin, Nigeria.

ABSTRACT
Objective: Thyroidectomy is traditionally performed under general anaesthesia with endotracheal intubation. However, cervical plexus block has also been found useful for this operation in some parts of the world. This particular anaesthetic option has never been reported in our environment. The aims of this study were to assess the feasibility, safety, effectiveness and patients’ acceptability of bilateral superficial cervical plexus block for thyroidectomy in our hospital.

Design: This is a prospective study of all consenting adult patients who presented with goiter and had thyroidectomy done in a Nigerian Teaching Hospital, between May 1998 and September 1999.

Setting: The study was carried out at the University of Ilorin Teaching Hospital, which is a tertiary health institution.

Subjects: The study included seventeen (17) Patients above the age of 18 years who presented with goiter and had elective thyroidectomy done within the study period.

Outcome Measures/Results: The 17 patients represented 65% of all those who underwent thyroidectomy in our hospital within the study period. There were 15 females and 2 males, giving a female to male ratio of 7.5:1. The median age of the patients was 44 (range 20-80) years. Types of goiter included 13 simple multinodular or nodular goiters, 3 diffuse toxic goiters and 1 malignant goiter. Sixteen (16) patients had subtotal thyroidectomy, while one had total thyroidectomy. Varying degrees of pressure symptoms during mobilization of the gland, and postural aches were some of the intra-operative problems encountered. These problems were described by the patients as tolerable. Fifteen (88%) of the patients found the anaesthesia satisfactory and would not mind recommending or having the same anaesthetic technique for similar procedure. Two (12%) of the patients expressed dissatisfaction with the anaesthesia and would not want it for similar procedure. In one of the two, the surgery was completed under general anaesthesia with endotracheal intubation when the block was found to be ineffective. The second patient became extremely apprehensive during surgery, although she denied experiencing any significant pain and refused conversion to general anaesthesia.

Conclusion: Bilateral superficial cervical plexus block is a useful anaesthetic option for thyroidectomy in temperamentally suited patients. Although the number was small, we can conclude that the block is feasible, safe, effective and easy to perform. It was acceptable to our patients.

Key words: Cervical Plexus, Superficial, block, and thyroidectomy.
years who presented with goiter and had elective thyroidec-
tomy done by one of the authors who is a surgeon. Informed
consent was obtained from the patients after the authors had
explained the procedure to them. Criteria for exclusion from
the study included patients’ refusal, allergy to local anaesthetic,
patients who were excessively anxious and apprehensive, deaf-
ness in the patient, recurrent laryngeal nerve palsy, local sep-
sis in the area of the block, significant upper airway obstruc-
tion due to pressure or narrowing of the trachea, and recurrent
goiters.

All patients were premedicated with oral diazepam 5-10mg,
two hours before being transferred to the theatre. In the pre-
operative holding area, the patients were sedated with intra-
venous midazolam 2mg and pentazocine 15-25mg. This was
followed by bilateral superficial cervical plexus block per-
formed by the consultant anaesthetist under aseptic conditions.

Relevant anatomy
The Cervical Plexus is formed from the ventral rami of the
first four cervical nerves. The components of the plexus are:
1. The cutaneous (superficial) branches of the plexus
2. The Ansa Cervicalis
3. The Phrenic nerve
4. Contributions to the accessory nerve.
5. Direct muscular branches.

By blocking only the superficial branches of the plexus, (C2,
C3, and C4), (Fig 1), the phrenic nerve is spared, while anaes-
thesia is effected in the neck. The cutaneous (superficial
branches) of the plexus are: greater occipital, greater auricu-
lar, transverse cervical and supraclavicular nerves. (Fig 2).

Technique of the Block
Superficial Cervical Plexus block: -
The midpoint of the posterior border of the sternomastoid was
identified. From this point, 12-15ml of the local anaesthetic
(a mixture of 20ml 0.5% bupivacaine + 10ml 2% Lignocaine
with adrenaline or 1% Lignocaine with adrenaline), was infil-
trated along the border of the muscle 3cm cephalad and caudad
(Fig. 3). A further 3-5ml of the solution was also infiltrated
superficially above the muscle to block the transverse cervi-
cal branch of the plexus. The block was performed on both
sides of the neck using a size 21 gauge hypodermic needle.

Superficial cervical plexus block is a field block, requiring
all the branches of the plexus to be bathed in local anaesthetic
solution. It thus relies on local anaesthetic ‘volume’ to be ef-
fective. Since thyroidectomy is a superficial procedure which
do not demand significant muscle relaxation, dilute solutions
of local anaesthetic agents like 0.375% bupivacaine or 1.5%
lignocaine block may be used to prevent overdosage with the
large volume. Where a mixture of 0.5% bupivacaine and 2%
lignocaine was used, the final concentrations of the individual drug will be lower than 0.5% and 2% respectively.

Any local anaesthetic agent suitable for major nerve blocks can be used for superficial cervical plexus block.

Transtracheal block
This block is useful to provide topical anaesthesia to the airway mucosa, supplied by branches of the vagus nerve (i.e. the internal branch of the superior laryngeal nerve, which provides sensation to both surfaces of the epiglottis and laryngeal structures to the level of the vocal cords, and the recurrent laryngeal nerve which provides sensation to the mucosal surface distal to the vocal cords). With the patient’s head absolutely straight and the neck extended, the cricoid cartilage was palpated. A 25 gauge needle attached to a syringe containing 4ml of 2% plain lignocaine was inserted in the midline, just above the cricoid, and advanced gently through the cricothyroid membrane. The aspiration of air confirmed the position of the needle tip in the trachea. The patient was then instructed to take a deep breath and then to cough. At peak inspiration, the drug was injected rapidly and the needle withdrawn. The cough would ensure that the local anaesthetic spread to the area above the cords supplied by the internal laryngeal nerve. Transtracheal block was not possible in two of the patients due to a significantly enlarged isthmus lobe of the thyroid gland, which made identification of landmarks difficult.

Intraoperative management
Patients were positioned supine with a shoulder pad to extend the neck, and the head was supported on a head ring. Drapings were applied in such a way to leave a portion above the chin free to facilitate intubation if required, and to allow proper facial aeration and prevent a feeling of suffocation. During surgery, patients were sedated with intermittent intravenous administration of midazolam and pentazocine as required. The doses of these drugs were titrated to ensure a minimally depressed patient who was able to maintain airway independently and responded appropriately to verbal command. The anaesthetist maintained communication with the patient throughout the surgery. The surgeon was aware of the intact swallowing reflex, and the need for gentle manipulation and dissection to minimize traction on the trachea. The pulse rate and oxygen saturation were monitored continuously and the non-invasive blood pressure every 5 minutes, using a Nellcor puritan Bennett five parameter monitor.

Postoperative assessment
At the end of the operation, the duration of the surgery was recorded and the patients were transferred to the recovery ward. A proforma was administered to each patient by a member of the surgical team who was not part of the study during the post-anaesthetic round, about 24 hours after the surgery, to find out if there were postoperative complications specific to the procedure and, the acceptability of the procedure by the patient.

Results
The seventeen (17) patients represented 65% of those who underwent thyroidectomy in our hospital within the study period (May 1998 to Sept. 1999). There were 15 females and 2 males giving a female to male ratio of 7.5:1. The median age of the patients was 44 years, with a range of 20 to 80 years (Table I). Types of goiter included 13 simple multinodular or nodular goiters, three (3) diffuse toxic goiters, and 1 malignant goiter. Sixteen (16) patients had subtotal thyroidectomies, while one had a total thyroidectomy (Table II). The duration of surgery ranged from 1 hour 10 min. to 3 hours 48 min (mean duration was 2 hours 34 min).

Fifteen (88%) of the patients found the anaesthesia satisfactory and would not mind recommending or having the same anaesthetic technique for a similar procedure. Two (12%) of the patients expressed dissatisfaction with the anaesthesia, and would not want it for a similar procedure. In one of the two, the surgery was completed under general anaesthesia with endotracheal intubation when the block was found to be ineffective. The second patient was probably a product of wrong patient selection. He became extremely apprehensive during the surgery, although he denied experiencing any significant pain and refused conversion to general anaesthesia. Incidentally,
these two patients were the only males in the series. Varying degrees of pressure symptoms during mobilization of the gland, and postural aches were common intra-operative problems encountered (Table III). These problems were described by the patients as tolerable. The patient with a malignant goiter had transient laryngeal spasm with accompanying arterial desaturation to a $S_aO_2$ of 75%. This responded to administration of 100% oxygen by facemask. The patient was one of the two in whom a transtracheal block was not done because of a significantly enlarged isthmus lobe of the thyroid gland. The patient also suffered intra-operative hypotension, which responded to fluid infusion and ephedrine therapy. Two patients developed clinical features of recurrent laryngeal nerve palsy in the postoperative period. They were subsequently confirmed by indirect laryngoscopic examination to have left recurrent laryngeal nerve paresis. They both recovered within 6 to 8 weeks of conservative management.

**DISCUSSION**

It has always been appreciated that thyroidectomy is not very stimulating to patients. Therefore a deep plane of anaesthesia is not necessary and no significant muscle relaxation is required. This conforms to the superficial nature of a straightforward thyroidectomy. In fact, when the needs for laryngoscopy and endotracheal intubation are removed, the two greatest stimuli in thyroidectomy are skin incision and manipulation of the

**TABLE II: ANAESTHETIC AND SEDATIVE AGENTS USED**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Patient</th>
<th>Preoperative Sedation</th>
<th>Local Anaesthetic used for Cervical block</th>
<th>Other Intraoperative drugs used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>OF</td>
<td>Midazolam 2mg Pentazocine 15mg</td>
<td>Bupivacaine 0.375% 30ml</td>
<td>Midazolam 6mg Pentazocine 20mg</td>
</tr>
<tr>
<td>2.</td>
<td>OY</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
<td>Lignocaine 1% with adrenaline 32ml</td>
<td>Midazolam 4mg Pentazocine 40mg</td>
</tr>
<tr>
<td>3.</td>
<td>OE</td>
<td>Midazolam 1 mg Pentazocine 5 mg</td>
<td>Lignocaine 1% with adrenaline 32ml</td>
<td>Midazolam 3mg Pentazocine 35mg</td>
</tr>
<tr>
<td>4.</td>
<td>AL</td>
<td>Midazolam 1mgPentazocine 15mg</td>
<td>Lignocaine 1% with adrenaline 34ml</td>
<td>Midazolam 3mg Pentazocine 10mg</td>
</tr>
<tr>
<td>5.</td>
<td>AB</td>
<td>Midazolam 2mg Pentazocine 15mg</td>
<td>Lignocaine 1% with adrenaline 30ml</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
</tr>
<tr>
<td>6.</td>
<td>AK</td>
<td>Midazolam 1mg Pentazocine 20mg</td>
<td>Bupivacaine 0.5% 20ml + Lignocaine 2%</td>
<td>Midazolam 2mg Pentazocine 30mg</td>
</tr>
<tr>
<td>7.</td>
<td>AR</td>
<td>Midazolam 2mg Pentazocine 10mg</td>
<td>Lignocaine 1% with adrenaline 25ml</td>
<td>Midazolam 2mg Pentazocine 40mg</td>
</tr>
<tr>
<td>8.</td>
<td>OT</td>
<td>Midazolam 2mg Pentazocine 25mg</td>
<td>Bupivacaine 0.5% 20ml + Lignocaine 2%</td>
<td>Midazolam 2mg Pentazocine 30mg</td>
</tr>
<tr>
<td>9.</td>
<td>AJ</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
<td>Lignocaine 1% 32ml with adrenaline</td>
<td>Midazolam 3mg Pentazocine 35mg</td>
</tr>
<tr>
<td>10.</td>
<td>IA</td>
<td>Midazolam 2mg Pentazocine 10mg</td>
<td>Lignocaine 1% 20ml with adrenaline</td>
<td>Midazolam 3mg Pentazocine 30mg</td>
</tr>
<tr>
<td>11.</td>
<td>SO</td>
<td>Midazolam 2mg Pentazocine 25mg</td>
<td>Bupivacaine 0.5% 20ml + Lignocaine 2%</td>
<td>Midazolam 3mg Pentazocine 40mg</td>
</tr>
<tr>
<td>12.</td>
<td>SS</td>
<td>Midazolam 3mg Pentazocine 20mg</td>
<td>Lignocaine 1% with adrenaline 32ml</td>
<td>Midazolam 8mg Pentazocine 20mg</td>
</tr>
<tr>
<td>13.</td>
<td>AH</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
<td>Bupivacaine 0.5% 20ml + Lignocaine 2%</td>
<td>Midazolam 7mg Pentazocine 65mg</td>
</tr>
<tr>
<td>14.</td>
<td>AB</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
<td>Bupivacaine 0.5% 20ml + Lignocaine 2%</td>
<td>Midazolam 6mg Pentazocine 35mg</td>
</tr>
<tr>
<td>15.</td>
<td>AK</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
<td>Bupivacaine 0.5% 20ml + Lignocaine 2%</td>
<td>Midazolam 2mg Pentazocine 30mg</td>
</tr>
<tr>
<td>16.</td>
<td>AR</td>
<td>Midazolam 2mg Pentazocine 20mg</td>
<td>Lignocaine 1% with adrenaline 36ml</td>
<td>Midazolam 5mg Pentazocine 60mg</td>
</tr>
<tr>
<td>17.</td>
<td>AA</td>
<td>Midazolam 2mg Pentazocine 25mg</td>
<td>Lignocaine 1% with adrenaline 35ml</td>
<td>Midazolam 5mg Pentazocine 25mg</td>
</tr>
</tbody>
</table>

**TABLE III: PATIENTS, AGE, SEX, DIAGNOSIS AND INTRAOPERATIVE PROBLEMS AND POSTOPERATIVE COMPLICATIONS**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Patient</th>
<th>Age (Yrs)</th>
<th>Sex</th>
<th>Diagnosis</th>
<th>Intraoperative Problems</th>
<th>Post-operative Complication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>OF</td>
<td>25</td>
<td>F</td>
<td>Simple solitary nodular goiter</td>
<td>Pressure, Postural aches/discomfort</td>
<td>Nil</td>
</tr>
<tr>
<td>2.</td>
<td>OY</td>
<td>32</td>
<td>F</td>
<td>Toxic multinodular goiter</td>
<td>Frequent coughing &amp; spitting</td>
<td>Nil</td>
</tr>
<tr>
<td>3.</td>
<td>OE</td>
<td>31</td>
<td>F</td>
<td>Toxic multinodular goiter</td>
<td>Pressure, frequent spitting</td>
<td>Nil</td>
</tr>
<tr>
<td>4.</td>
<td>AL</td>
<td>37</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>5.</td>
<td>AB</td>
<td>47</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Postural body aches</td>
<td>Hoarseness of the voice, mild stridor when asleep, Transient paralysis of left vocal cord</td>
</tr>
<tr>
<td>6.</td>
<td>AK</td>
<td>42</td>
<td>M</td>
<td>Simple nodular goiter</td>
<td>Very apprehensive, pressure postural aches</td>
<td>Nil</td>
</tr>
<tr>
<td>7.</td>
<td>AR</td>
<td>38</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Pressure, postural aches</td>
<td>Nil</td>
</tr>
<tr>
<td>8.</td>
<td>OT</td>
<td>38</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Apprehension, pressure Postural aches</td>
<td>Nil</td>
</tr>
<tr>
<td>9.</td>
<td>AJ</td>
<td>38</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Apprehension, pressure Postural aches</td>
<td>Hypoalcaemia</td>
</tr>
<tr>
<td>10.</td>
<td>IA</td>
<td>80</td>
<td>F</td>
<td>Malignant giant goiter</td>
<td>Laryngeal spasm, Hypotension, Bradycardia, Large Blood Loss</td>
<td>Nil</td>
</tr>
<tr>
<td>11.</td>
<td>SO</td>
<td>83</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Pressure, minor pain on the left side where the block appeared inadequate</td>
<td>Nil</td>
</tr>
<tr>
<td>12.</td>
<td>SS</td>
<td>35</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Pressure, mild pain towards end of surgery</td>
<td>Nil</td>
</tr>
<tr>
<td>13.</td>
<td>AH</td>
<td>49</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Postsurgical aches desire to void</td>
<td>Nil</td>
</tr>
<tr>
<td>14.</td>
<td>DO</td>
<td>28</td>
<td>M</td>
<td>Simple multinodular goiter</td>
<td>Severe pain, Conversion to GA</td>
<td>Nil</td>
</tr>
<tr>
<td>15.</td>
<td>MR</td>
<td>20</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Pressure, Postural aches</td>
<td>Transient Hoarseness of the voice</td>
</tr>
<tr>
<td>16.</td>
<td>GB</td>
<td>75</td>
<td>F</td>
<td>Simple nodular goiter</td>
<td>Pressure, Postural aches</td>
<td>Nil</td>
</tr>
<tr>
<td>17.</td>
<td>AA</td>
<td>35</td>
<td>F</td>
<td>Simple multinodular goiter</td>
<td>Pressure, Postural aches</td>
<td>Nil</td>
</tr>
</tbody>
</table>
RESEARCH

gland around the larynx and trachea.

Since the superficial branches are sensory and the remain-
der of the superficial plexus is motor, a block of the superficial
plexus plexus alone has been found adequate for thyroidec-
tomy.4,5 The block takes care of the pain of skin incision and
the necessary tissue dissection. Superficial cervical plexus
block is easier and safer than the combined superficial and
deep cervical plexus block which has been used by some other
authors.3,4 Deep cervical plexus block is often accompanied
by at least subtotal phrenic nerve block2, which might be dan-
gerous in a technique of bilateral block. Furthermore, the
place the needles near the vertebral artery, which may be af-
fected by the local anaesthetic.9,10 The technique of local an-
esthetic infiltration has also been used successfully by few
authors in Nigeria.1,2 However, this technique places a dual
responsibility on the surgeon, as he needs to repeat the infil-
tration many times during surgery. Many surgeons may find
this inconvenient and time consuming. Furthermore, The tech-
nique may be uncomfortable and not tolerated well by most
patients. Compared with superficial cervical plexus block, lo-
cal infiltration technique runs a risk of using too much drug.

Surgical operation on the neck in an awake patient can cause
anxiety, amounting to fear and a feeling of panic, especially
when it involves manipulation around the airway. Thorough
preoperative psychotherapy, careful patient selection and ju-
dicious use of sedative drugs in the perioperative period were
relied upon to minimize anxiety in our patients. Apart from
anxiolysis, the amnesia provided by midazolam was also de-
sirable for these patients.

The classical thyroidectomy position requires significant
neck extension to guarantee optimal surgical access. This puts
a considerable strain on the cervical spine and results in vary-
ing degrees of discomfort. This, combined with the prolonged
immobility on the hard operating table is more than enough
to account for the varying degrees of postural aches and pain
encountered in a large number of our patients. It is surprising
to note that this problem was not highlighted in any of the
previous studies.4,5 The analgesic effect of pentazocine was
relied upon to relieve postural aches and pain in our patients.
Since the dose had to be titrated to prevent a deep state of
anaesthesia, enough could not be administered to completely
prevent the postural discomfort. A trial with non-steroidal anti-
inflammatory analgesic (NSAID), like piroxicam, given at the
time of premedication may be worthwhile for subsequent cases.
Adequate padding of all bony prominences may also help mini-
imize the postural discomfort.

Too much traction on the trachea during surgical manipula-
tion and pressure effect of retractors are bound to stimulate
the airway resulting in discomfort, coughing, choking, and
even laryngeal spasm. Careful tissue handling, dissection and
retraction, as well as gentle mobilization of the thyroid gland,
ensured minimal traction and pressure on the trachea during
surgery. Several methods are available to obtund airway sen-
sitivity. A few earlier authors have found topical anaesthesia
by transtracheal injection of local anaesthetic useful.5,11 We
also employed transtracheal block for our patients. The fact
that we still encountered this problem in our patients could be
attributable to the short duration of action of the transtracheal
lignocaine due to rapid absorption from the airway mucosa. A
repeat of the block has been suggested in a prolonged proce-
dure3, although this was not done for any of our patients. An
alternative method for producing anaesthesia of the upper air-
way is to nebulise 3-4ml of lignocaine 4% through an oxygen
facemask. This process takes a longer time to work but is sim-
pler, requires less expertise and may be better tolerated by
patients.3 Although anaesthesia of the upper airway increases
the risks of pulmonary aspiration, this was not a significant
problem in our patients since they were all fasted elective pa-
tients with low risks of vomiting and regurgitation. It is wor-
thy to note that the only patient who had a laryngeal spasm
during surgery was not given a transtracheal block due to tech-
nical difficulty. This serves to further emphasize the role of
the transtracheal block as an important adjunct in superficial
cervical plexus block for thyroideotomy.

While regional anaesthesia may not be considered in com-
petition with general anaesthesia, the technique has become a
reasonable alternative in a number of surgical procedures. We
now know that there are many patients for whom a correctly
chosen and well-managed regional technique has much to of-
er, especially if the anaesthesit is prepared to combine it with
sedation. The technique of combining local anaesthesia with
sedation has been referred to as sedoanalgesia13 or conscious
sedation.14 This is a form of monitored anaesthesia care which
ensures a level of sedation that retains the patient’s ability to
maintain an airway independently and continuously, and to
respond appropriately to physical stimulation and verbal com-
mands.13 Preservation of consciousness is a desirable end in
itself for the rare patient who is terrified of being made un-
conscious. The technique allows the patient to be alert and
able to warn the surgeon of any trespass on the recurrent lary-
geal nerve. Hoarseness, crowing or respiratory obstruction
during the operation provide early signs which may suggest
encroachment on the integrity of the recurrent laryngeal nerve.
However two of our patients developed features of recurrent
laryngeal nerve palsy postoperatively, even though none of
them demonstrated an obvious feature of nerve damage dur-
ing the operation. We believe the transient nature of the dys-
function would suggest a probable inflammatory reaction
mainly after the surgery.

The duration of surgery appeared long in some of the pa-
tients. This is a reflection not necessarily of the quality of ana-
esthesia, but of the need to ensure gentleness in tissue han-
dling and dissection, and manipulation of the gland in an awake
patient, especially in those with huge goitres with retrosternal
extension. Fortunately the duration of the local anaesthetic
agents used was long enough to cover the extended period of
surgery as we did not need to supplement the anaesthesia in
any of the patients. It is however not unlikely that residual
analgesic effect of the narcotic drugs used for the sedation
may have augmented the residual cutaneous analgesic effect
of the local anaesthetic to ensure pain relief to the end of the
procedure.

Finally, we wish to conclude that superficial cervical plexus
block is well suited for thyroideotomy. The technique is simple,
safe, effective and cheap when compared to general anaesthesia,
and patients’ acceptability as shown by our study, was sat-
sfactory. The overall quality of operating condition as assessed
by the surgeon was satisfactory. Careful patient selection is
important to exclude those that are temperamentally unsuit-
able. The role of adequate sedation to relief fear and anxiety
and minimize the discomfort caused by prolonged immobility
on hard operating table cannot be overemphasized. Gentle
execution of the surgical procedure is also essential to minimize unnecessary pressure effects and traction on the trachea.

References

SASA Golf Day

Venue:
Randpark Golf Club (Windsor Course)

Date:
15 March 2004

For further information contact:
Andrew Thomas on 082 604 5038 or Renni Rouncivell on 082 441 6904

!! Great prizes to be won !!