HOW SAFE AND EFFECTIVE ARE ARTHROSCOPIC PROCEDURES OF SHOULDER JOINT UNDER ISOLATED REGIONAL ANAESTHESIA?

DR AARTHI THIAGARAJAN
DR RAGHUNAGARAJ
HOSMAT HOSPITAL
BANGALORE, INDIA
I have no financial conflicts to disclose
OBJECTIVES

• To determine the preoperative variables which are associated with increased postoperative pain and discomfort
• To determine the “red flags” in a patient to avoid regional anaesthesia
• To determine whether the functional outcome of the surgery, correlated with the preoperative variables.
MATERIALS AND METHODS

PRE-OP
- ANXIETY SCORE *
- ALCOHOL DEPENDENCE
- ANALGESIC DEPENDENCE
- UCLA SCORE

INTRA-OP
- Physiological parameters of pain like Pulse rate, BP, Respiratory rate
- RAMSAY SEDATION SCALE
- COMPLICATIONS OF REGIONAL ANESTHESIA

POST-OP
- VAS SCORES at post op hour 0, 2, 4, 6, 8 and 10
- COMFORT LEVEL
- UCLA SCORE at 3, 6 months

* State trait anxiety score
## RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>31</td>
<td>59</td>
<td>91</td>
</tr>
</tbody>
</table>

Group A - Decompressive including Subacromial decompression, acromioplasty, Acromioclavicular joint debridement, Calcific tendinitis needling, capsular release, Biceps tenotomy, glenohumeral arthrolysis

Group B - Glenohumeral Instability procedures including a SLAP repair

Group C - Repairs of the Rotator Cuff with or without other procedures
# RESULTS

<table>
<thead>
<tr>
<th>Comorbidities</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Mellitus</td>
<td>43</td>
</tr>
<tr>
<td>Hypertension</td>
<td>38</td>
</tr>
<tr>
<td>Hypothyroidism</td>
<td>6</td>
</tr>
<tr>
<td>Ischemic heart disease</td>
<td>8</td>
</tr>
<tr>
<td>Obesity</td>
<td>12</td>
</tr>
<tr>
<td>COPD</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block Complications</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vasovagal episode</td>
<td>3</td>
</tr>
<tr>
<td>Horner’s syndrome</td>
<td>5</td>
</tr>
<tr>
<td>Recurrent Laryngeal Nerve Palsy</td>
<td>9</td>
</tr>
<tr>
<td>Hemidiaphragmatic Palsy</td>
<td>4</td>
</tr>
<tr>
<td>Block Failure</td>
<td>3</td>
</tr>
</tbody>
</table>
RESULTS

<table>
<thead>
<tr>
<th>Ramsay Sedation Scale</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>104</td>
</tr>
<tr>
<td>B</td>
<td>53</td>
</tr>
<tr>
<td>C</td>
<td>24</td>
</tr>
</tbody>
</table>

ROC curve for A,B

ROC curve for B,C
RESULTS

From our results, we can conclude a cutoff value of the anxiety scores which would suggest the sedation required for the patient.

<table>
<thead>
<tr>
<th>Cutoff value for Anxiety score</th>
<th>Ramsay Sedation Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety Score &lt; 9</td>
<td>A</td>
</tr>
<tr>
<td>$9 \leq$ Anxiety score &lt; 15</td>
<td>B</td>
</tr>
<tr>
<td>Anxiety Score $\geq$ 15</td>
<td>C</td>
</tr>
</tbody>
</table>
CO-RELATION BETWEEN THE VARIABLES

VAS SCORES

Co related

- Anxiety score
- Alcohol dependence
- Analgesic dependence

No relation

- Age
- Co morbidities
- Physiologic parameters of pain
CO-RELATION BETWEEN THE VARIABLES

UCLA SCORE

- Anxiety score
- Alcohol Dependence
- Analgesic Dependence

Co related

Not related
- VAS Scores
- Co morbidities
- Age
# IN A NUTSHELL

## ADVANTAGES
- Doctor patient interaction during surgery
- Early recovery
- Safety in patients with comorbidities and the aged
- Ease of administration
- Post operative analgesia

## RED FLAGS
- Anxiety Scores >15 *
- Claustrophobia
- Alcohol Dependence
- Analgesic Dependence

* State-trait anxiety score
REFERENCES