THORACIC EPIDURAL VS INTERCOSTAL BLOCK FOR POSTOPERATIVE PAIN MANAGEMENT IN VATS (VIDEO-ASSISTED THORACOSCOPIC SURGERY)

A.R. Martínez Ibáñez¹, M. Álvarez Garoña¹, C. Tárraga Honrubia¹, M.J. Rivera Cogollos¹, J. Navarro-Martínez¹, P. Más Serrano²

¹Dept of Anaesthesiology & Critical Care, ²Dept of Clinical Pharmacology - Hospital General Universitario de Alicante, Alicante (Spain)

BACKGROUND AND GOAL OF STUDY

Thoracic Epidural (TE) and Paravertebral Block are the gold standard for intra and postoperative pain management in thoracotomy. However, their utility in VATS is being questioned, as there are thoughts that a less invasive surgery should require a less invasive pain management technique too.

Our study's main objective is to determine the effect of Intercostal Block (ICB) in postoperative pain scores during the first 48h after VATS surgery, compared with TE.

RESULTS

Both groups were homogeneous with an mean age of 62 years and an ASA score of II. Results of VAS score for pain at rest and in motion were as exposed in the table.

Statistically significant differences were not found on either side for VAS score, either at rest or in motion. There also weren't any significant differences between groups for morphine administration (mg).

	ICB (p25-p75)	TE (p25-p75)
VAS at rest:		
• Admission	2(0-5,75)	2(0-5)
• Evening	1,5(0-5)	2(0-5)
• Midnight	1(0-5)	1(0-5)
• 8.00am	1(0-4)	1(0-3,75)
• Noon	1(0-3)	1(0-2)
• 48h post-surgery	0.5(0-2)	0(0-2)
VAS in motion:		
• Admission	3,5(0-6,5)	4(1,5-7,75)
• Evening	4(1-6)	5(2,25-6,75)
• Midnight	4(1,75-5,5)	5(2,25-7)
• 8.00am	4(2-5,25)	4(2-5)
• Noon	4(3-5,25)	2,5(1,25-5)
• 48h post-surgery	2(1-4,25)	2,5(2-3,75)
Morphine (mg)	0 (0-1,5)	0 (0-0)

MATERIAL AND METHODS

We retrieved records from 42 patients who had undergone VATS for lobectomy in the past 5 months from our hospital's data base. They were divided in two groups of 21:

- **Group 1:** ICB performed by the surgeon with Bupivacaine 0.5%
- **Group 2:** placement of TE followed by a continuous infusion of Ropivacaine 0.2%.

We reviewed data about postoperative pain, both in rest and movement, registered at each nursing shift: admission into the ICU, evening and midnight the same day, at 8.00am and noon the following day, and 48h after the surgery, using the VAS (Visual Analog Scale) for pain. Morphine administration was also documented.

CONCLUSIONS

Overall, both groups presented similar VAS score after the first 48h after the surgery. No distinction was found in terms of rescue analgesia for both techniques either.

Ultimately, we found ICB provides postoperative analgesia comparable to TE in VATS, and therefore it could become the procedure of choice for this kind of surgery.