4 ANTERIOR QUADRATUS LUMBORUM BLOCK FOR POSTOPERATIVE RECOVERY AFTER TOTAL HIP ARTHROPLASTY: A RANDOMIZED, MULTIPLE-BLIND, PLACEBO-CONTROLLED TRIAL

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Background and Aims Appropriate pain management is essential to improve the postoperative recovery after total hip arthroplasty (THA). Some randomized trials have indicated that anterior quadratus lumborum block (QLB) provides effective postoperative analgesia in THA. However, whether anterior QLB improves postoperative recovery after THA is unclear.

Methods The participants were randomly assigned to either the anterior QLB or placebo groups. After induction of general anesthesia, anterior QLB was performed by using 0.25% levobupivacaine or normal saline. The primary outcome was the quality of recovery 40 score (QoR-40). Secondary outcomes included the visual analog scale score of pain intensity at rest and movement, intraoperative and postoperative doses of fentanyl, and incidence of postoperative nausea and vomiting.

Results This study included and analyzed 70 participants of the anterior QLB group and 69 participants of the placebo group. The pain dimension in QoR-40 score 24 hours after the surgery was higher in the anterior QLB group than in the placebo group (median 30.5 [IQR 27.0, 32.0] vs 28.0 [24.0, 32.0] p=0.033). However, total score of QoR-40, which is the primary outcome, were not statistically significant different between each group (169 [153, 177] vs 158 [142, 177] p=0.122) (table 1). The anterior QLB group needed less intraoperative dose of fentanyl than the placebo group (275 [200, 350] vs 350 [250, 425] p=0.007). Other secondary outcomes were not statistically significant different.

Abstract 4 Table 1

	Anterior QLB(n=70)	Placebo(n=69)	P value
Total score of QoR-40	168.50 [153.25, 177.00]	158.00 [142.00, 177.00]	0.122
• physical comfort	50.50 [45.25, 54.00]	47.00 [41.00, 54.00]	0.156
• emotional state	39.00 [35.25, 41.00]	38.00 [33.00, 42.00]	0.483
• physical independence	15.50 [12.00, 20.00]	15.00 [12.00, 19.00]	0.886
• psychological support	34.00 [29.00, 35.00]	33.00 [29.00, 35.00]	0.525
• pain	30.50 [27.00, 32.00]	28.00 [24.00, 32.00]	0.033

Conclusions Anterior QLB combined with general anesthesia did not improved postoperative recovery after total hip arthroplasty.

5 COMPARISON OF PERIPHERAL NERVE BLOCK WITH GENERAL ANESTHESIA AND GENERAL ANESTHESIA ALONE IN TERMS OF POSTOPERATIVE DELIRIUM AND COMPLICATIONS USING A NATIONWIDE DATABASE

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Background and Aims The effect of peripheral nerve block (PNB) under general anesthesia (GA) on the clinical outcome comparing GA alone remains unknown. We hypothesized that PNB is associated with reduced postoperative delirium and improved patients morbidity after surgical procedures.

Methods We used a nationwide inpatient database in Japan to compare patient outcomes by GA with PNB versus GA alone from April 2016 to October 2019. Our primary outcome was postoperative delirium. The incidence of morbidity were secondary outcomes. We conducted propensity score matched analyses of patients who underwent all surgical procedures using 41 covariates. Chi-square analyses were performed to calculate odds ratios and their 95% confidence intervals (CI). For sensitivity analyses, we performed instrumental variables and restricted the definition of postoperative delirium and subgroup.

Results Of 591,578 patients, 82,461 received GA-PNB, and 509,117 received GA group. After one to four propensity score matching, 81,873 patients were included in the GA-PNB group and 204,932 in the GA group. The adjusted odds ratios for postoperative delirium, composite morbidity were 0.953 (95%CI 0.924 to 0.982), 0.766 (95%CI 0.727 to 0.806), respectively, for the GA-PNB group with reference to the GA group. For sensitivity analyses, findings were also consistent with instrumental variable and subgroup analyses.

Conclusions This retrospective, nationwide cohort study demonstrated that PNB underwent GA was associated with reduced postoperative delirium and composite morbidity.

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6 REAL-TIME ULTRASOUND-COMPUTED TOMOGRAPHY IMAGE FUSION TRANSFORAMINAL LUMBAR APPROACH

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Background and Aims Transforaminal approach under ultrasounds (US) remains challenging. We evaluated on phantoms if fusions of computed tomography (CT) images with dynamic US examinations lead to precise location and puncture of the foramina between the fourth and fifth lumbar vertebra (L4-L5).

Methods Three anesthesiologists performed fusions of US and CT images with 3 different techniques on 2 models of phantom. Technique 1: fusion of the edge of the spinous process of L5 and the 2 posterior superior iliac spines. Technique 2: location of the 2 lateral extremities of the laminae instead of iliac spines. Technique 3: skin landmarks. Comparisons were performed with the value of precision (VP). 3 punctures targeting the right L4-L5 foramina were performed, needles positions were checked under X-ray. VPs were compared with ANOVAs, $p<0.05$ considered significant and results reported as means ± standard deviation.

Results One hundred and fifty fusions were recorded. Techniques 1 and 2 were performed on the gelatin phantom; technique 2 was superior to technique 1 (VP: 1.12 ± 0.54 vs 2.38 ± 1.49 for operator 1, 0.6 ± 0.39 vs 3.66 ± 1.22 for operator 2, 0.89 ± 0.31 vs 1.23 ± 0.63 for operator 3, $p<0.001$). There was no difference between the 3 techniques evaluated with the marketed phantom. X-ray examinations confirmed

that punctures under fusion led the tip of the needle in the L4-L5 foramina.

Conclusions Bony and surface landmarks allow an accurate fusion of CT and US images of the lumbar spine and precise localizations and puncturing of lumbar neural foramina.

7 RELATIONSHIP BETWEEN COMORBIDITIES IN PATIENTS WITH CHRONIC LOW BACK PAIN UNDERGOING INTERVENTIONAL PAIN MANAGEMENT TECHNIQUES, AND PATIENT SATISFACTION AND CLINICAL RESPONSE

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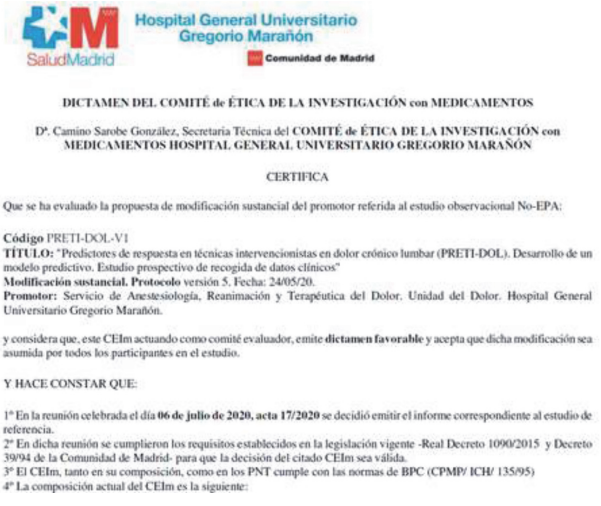
Background and Aims Response to Interventional Pain Management Techniques is often variable and unpredictable. This study aims to evaluate the association between comorbidities of 251 patients undergoing Interventional Pain Management Techniques (IPMT) for Chronic Low Back Pain (CLBP) with patient satisfaction and clinical response at 1 month after IPMT.

Methods

- This is a sub–study of a prospective longitudinal observational study (PReTI–Back, NCT NCT04451252).
- Adult patients who were prescribed a IPMT were eligible. Patients who refused to participate in the study and those who had intercurrent pathology that could interfere with the evaluation of pain were excluded.
- Approval has been granted by the ethics committee of our hospital.

Results No statistically significant differences regarding fibromyalgia, anxiety/depression, substance abuse disorder, diabetes, arthrosis, osteoporosis, rheumatic disease, obesity and other chronic pain were identified. The following findings were statistically significant. Patients with failed back surgery syndrome (FBSS) or neuropathic pain (NP)obtained a lower clinical response rate and lower percentage of patient satisfaction.



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DICTAMEN DEL COMITÉ de ÉTICA DE LA INVESTIGACIÓN con MEDICAMENTOS

Dª. Camino Sarobe González, Secretaria Técnica del COMITÉ de ÉTICA DE LA INVESTIGACIÓN con MEDICAMENTOS HOSPITAL GENERAL UNIVERSITARIO GREGORIO MARAÑÓN

CERTIFICA

Que se ha evaluado la propuesta de modificación sustancial del promotor referida al estudio observacional No-EPA:

Código PRETI-DOL-V1
TÍTULO: "Predictores de respuesta en técnicas intervencionistas en dolor crónico lumbar (PRETI-DOL). Desarrollo de un modelo predictivo. Estudio prospectivo de recogida de datos clínicos"
Modificación sustancial. Protocolo versión 5. Fecha: 24/05/20.
Promotor: Servicio de Anestesiología, Reanimación y Terapéutica del Dolor. Unidad del Dolor. Hospital General Universitario Gregorio Marañón.

y considera que, este CEIm actuando como comité evaluador, emite **dictamen favorable** y acepta que dicha modificación sea asumida por todos los participantes en el estudio.

Y HACE CONSTAR QUE:

1º En la reunión celebrada el día **06 de julio de 2020, acta 17/2020** se decidió emitir el informe correspondiente al estudio de referencia.
2º En dicha reunión se cumplieron los requisitos establecidos en la legislación vigente -Real Decreto 1090/2015 y Decreto 39/94 de la Comunidad de Madrid- para que la decisión del citado CEIm sea válida.
3º El CEIm, tanto en su composición, como en los PNT cumple con las normas de BPC (CPMP/ ICH/ 135/95)
4º La composición actual del CEIm es la siguiente:

Abstract 7 Figure 1

Abstract 7 Table 1

		N (total=251)	Moderate improvement	Major improvement	A	B
COMORBIDITIES						
Fibromyalgia						
	YES	19	31.60%	10.50%	57.90%	84.20%
	NO	232	29.30%	13.40%	50.90%	78.40%
	P		0.50	0.53	0.36	0.4
Anxiety/Depression						
	YES	65	30.80%	12.30%	52.30%	80%
	NO	186	29%	13.40%	51.10%	78.50%
	P		0.45	0.5	0.49	0.47
Substance abuse						
	YES	5	60%	40%	40%	60%
	NO	246	28.90%	12.60%	51.60%	79.30%
	P		0.15	0.13	0.47	0.28
Failed back surgery syndrome						
	YES	55	16.40%	3.60%	36.40%	69.10%
	NO	196	33.20%	15.80%	55.60%	81.60%
	P		0.01	0.01	0.01	0.04
Diabetes						
	YES	38	31.60%	15.80%	47.40%	78.90%
	NO	213	29.10%	12.70%	52.10%	78.90%
	P		0.45	0.38	0.35	0.60
Arthrosis						
	YES	122	32%	14,.0%	54.10%	82%
	NO	129	27.10%	11.60%	48.80%	76%
	P		0.24	0.29	0.24	0.16
Rheumatic disease						
	YES	12	41.70%	16.70%	50%	75%
	NO	239	28.90%	13%	51.50%	79.10%
	P		0.26	0.49	0.58	0.48
History of cancer						
	YES	12	66.70%	16.70%	75%	91.70%
	NO	239	27.60%	13%	50.20%	78.20%
	P		0.01	0.49	0.08	0.24
Obesity						
	YES	16	12.50%	6.30%	56.30%	87.50%
	NO	235	30.60%	13.60%	51.10%	78.30%
	P		0.10	0.35	0.44	0.30
Other chronic pain						
	YES	51	39.20%	13.70%	52.90%	76.50%
	NO	200	27%	13%	51%	79.50%
	P		0.06	0.52	0.46	0.38
Neuropathic pain						
	YES	114	21.90%	7%	43%	86.10%
	NO	137	35.80%	18.20%	58.40%	70.20%
	P		0.01	0.01	0.01	0.002
Neurogenic claudication						
	YES	81	23.50%	7.40%	48.10%	75.30%
	NO	170	32.40%	15.90%	52.90%	80.60%
	P		0.10	0.045	0.28	0.21

Also, patients with neurogenic claudication (NC) had a lower rate of major improvement (table 1).

Conclusions FBSS, NP and NC were associated with worse response to IPMT.

Further investigation is needed to address the importance of comorbidities in IPMT response, so as to be taken into account when individualizing management of CLBP.

8 KNEE PAIN: EXPERIMENTAL RADIOFREQUENCY

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Background and Aims Knee osteoarthritis (OA) is a major cause of disability with growing impact in a more aging society. Conservative therapies have shown limited efficacy. After Total knee arthroplasty 15% to 30% of patients continue experiencing pain.

Radiofrequency ablation of genicular nerves is effective in relieving pain. Bony landmarks under fluoroscopic guidance