2020, and December 31, 2021. The KNHI provides coverage to approximately 97% of Koreans, while the remaining 3% who cannot afford national insurance are covered by the Medical Aid Program. The database used in this study was provided by the National Health Insurance Sharing Service, which includes virtually all operations performed in Korea during the study period. The study protocol was reviewed by the Institutional Review Board of Seoul Paik Hospital (IRB No PAIK 2023-05-001) and was exempted due to the use of de-identified administrative data. The major inclusion criterion was admission with operation codes specific to cesarean section procedures (R4514, R4516, R4517, R4518, R4519, R4520, R4507, R4508, R4509, R4510, R5001, R5002). The study assessed mortality and pulmonary complications.

Results 75,703 patients were had cesarean section, among them 383 patients (0.51%) with diagnosis code (U071) within 30 days before surgery or within 30 days after surgery. During the period, mortality were 0.05%. Overall and 30 days' pulmonary complications were 1.06% and 0.15%. Mortality were increased in general anesthesia than regional anesthesia.

Conclusions The findings support the consideration of regional anesthesia as a preferred choice in cesarean section during the COVID-19 pandemic.

EP143 REGENERATION POTENCY OF TENDON DERIVED STEM CELL IN TEDINOPATHY CAN BE SUPPRESSED BY PAIN MEDIATORS: IN VITRO STUDY

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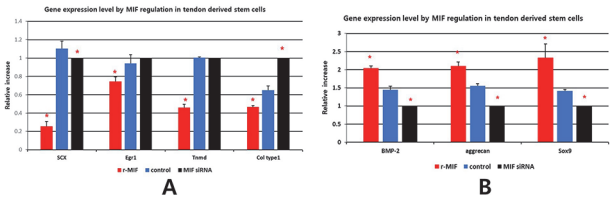
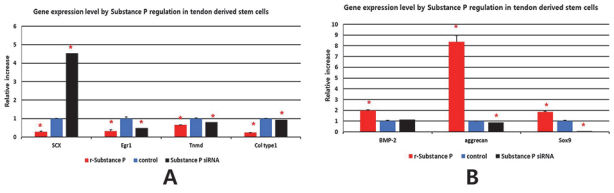
Background and Aims Tendon-derived stem cells (TDSCs) in tendons are responsible for tenogenesis and tendon regeneration. Aberrant nontenogenic differentiation of TDSCs, such as chondrogenic metaplasia, have been suggested as a pathogenesis of tendinopathy. Additionally, pain mediators, such as substance P, calcitonin gene-related peptide (CGRP) and macrophage migration inhibitory factor (MIF), have been increasingly discussed as an important factor in the pathogenesis of tendinopathy. The purpose was to evaluate whether the pain mediator affects differentiation of TDSC.

Methods TDSC was isolated and cultured from the Achilles tendon of SD rats. TDSC were treated with recombinant MIF, recombinant substance P, or recombinant CGRP. For gene knockdown, TDSC were transfected with MIF small interfering RNA (siRNA), substance P siRNA, or CGRP siRNA. The TDSC culture mediums were prepared for RT-PCR. Expression of tenogenic genes (SCX, Egr1, Tnmd, Col type 1) and chondrogenic genes (BMP2, aggrecan, Sox9) of TDSC were compared with control group.

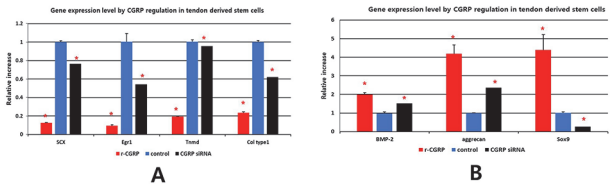
Results Treatment of recombinant pain mediators (MIF, Substance P or CGRP) in TDSC showed down-regulated tenogenic genes expression (figure 1A, 2A, 3A) and up-regulated chondrogenic genes expression (Fig 1B, 2B, 3B) compared with control ($p<.05$). Knockdown of pain mediator genes (MIF, Substance P or CGRP) in TDSC showed down-regulated chondrogenic gene expression (figure 1B, 2B, 3B) while expression was up-regulated in a few tenogenic gene (Col type 1 with MIF and SCX with Substance P).



Abstract EP143 Figure 1 A. The tenogenic Mrna expression levels of TDSC in recombinant MIF and knockdown of MIF. (*P <0.05 vs. control) B. The chondrogenic mRNA expression levels of TDSC in recombinant MIF and knockdown of MIF. (*P <0.05 vs. control)



Abstract EP143 Figure 2 A. The tenogenic mRNA expression levels of TDSC in recombinant Substance P and knockdown of Substance P. (*P <0.05 vs. control) B. The chondrogenic mRNA expression levels of TDSC in recombinant CGRP and knockdown of CGRP. (*P <0.05 vs. control)



Abstract EP143 Figure 3 A. The tenogenic mRNA expression levels of TDSC in recombinant CGRP and knockdown of CGRP. (*P <0.05 vs. control) B. The chondrogenic mRNA expression levels of TDSC in recombinant CGRP and knockdown of CGRP. (*P <0.05 vs. control)

Conclusions Pain mediators, such as Substance P, CGRP and MIF, appear to be associated with pathogenesis of tendinopathy via enhance the aberrant chondrogenic differentiation and suppression of tenogenic differentiation of TDSC.

[18-100-D3-N] Protocol Approval of Animal Study Plan

EP144 EFFICACY OF PERICAPSULAR NERVE GROUP BLOCK AFTER TOTAL HIP ARTHROPLASTY SURGERY

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10.1136/rapm-2023-ESRA.211

Background and Aims Total hip arthroplasty (THA) is associated with severe postoperative pain, traditionally managed using systemic analgesia alone.The Pericapsular Nerve Group Block (PENG Block) provides an effective blockade to the articular branches of the anterior hip joint.It may allow early rehabilitation, with a potential motor-sparing effect. The aim of the study: Evaluate the efficacy of the PENG block for intra and postoperative pain control in THA.

Methods In a controlled-blinded study, patients more than 18 years old scheduled for primary THA under general anesthesia were randomized in two groups: PENG Block group (PG) with 2 mg.kg-1Ropivacaine in 40 ml of saline. Placebo group (SG) who received only saline. Postoperative analgesia with: paracetamol 1g/6H,piroxicam 20 mg and Morphine PCA. The main endpoint was total morphine consumption for 24 hours. Secondary endpoints were: Fentanyl consumption, Pain scores (NRS) at rest and on movement and sitting position.

Results

Sixty patients were included The two groups were comparables. Fentanyl dose was equal in both groups: 345±106 µg in SG vs. 357±65 µg in PG. Morphine consumption was similar in both groups:8.5±5.8mg in SG vs. 9.6 ± 8.2 mg in PG. Time to first request was 1.0±0.6 h for patients in SG vs. 2.0±2.0 h in PG. Pain scores were also not different. Pain free sitting position noted in 50% of patientin two groups.

Conclusions PENG block may improve the quality of recovery and reduce opioid requirements. However, our study did not show a significant impact of PENG block on intra and post-operative pain control in total hip arthroplasty.

ePoster session 5 – Station 2

EP151 DEVELOPMENT OF AN AUTOMATED CHRONIC PAIN REGISTRY CAPTURING OUTPATIENT TREATMENTS AND PATIENT- REPORTED OUTCOMES

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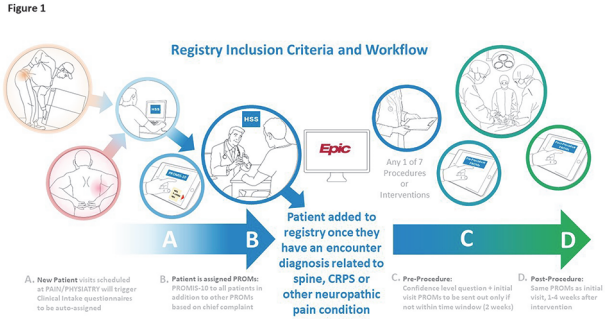
10.1136/rapm-2023-ESRA.212

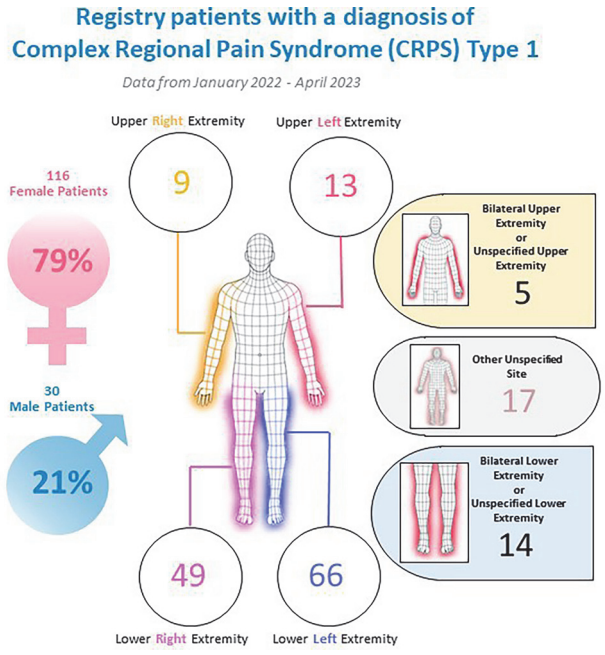
Background and Aims A variety of treatments are utilized in outpatient settings to manage chronic pain. Evidence for long-term treatment effectiveness is lacking, particularly for rare conditions such as complex regional pain syndrome (CRPS). There is limited patient- and encounter-level data from outpatient pain clinics to guide practice and spur innovation. The goal of this project was to create an automated, standard of care analytical registry embedded within a single institution's electronic health record system that can be used as a clinical and research tool.

Methods After IRB approval, logic functions were programmed within the electronic health record (Epic) to automatically identify new patients who meet inclusion criteria of having a spine-related or neuropathic pain condition. For every registry patient, the database is being programmed to save key metrics and outcomes including demographics, history of present illness, interventional procedures performed and patient-reported outcomes over 2 years (figure 1).

Results As of the registry go-live (January 20, 2022) through April 30, 2023, the census includes 11,804 active patients, of which 1.2% (n=146) suffer from CPRS type 1 (figure 2). Collectively, patients were treated by 26 providers in the pain management and physiatry departments at over eight locations in the New York tri-state area.



Abstract EP151 Figure 1 Registry inclusion criteria and workflow



Abstract EP151 Figure 2 Registry patients with a diagnosis of Complex Regional Pain Syndrome (CRPS) Type 1

Conclusions This registry represents a proof-of-concept, automated data repository collecting key metrics and longitudinal outcomes from patients being treated for chronic, subacute and acute pain across affiliated outpatient clinics. It will serve as a data-driven tool to facilitate dialogue between providers and patients, promote quality assurance, and enable research and innovation in pain management.

Gungor_2021-0076_Outpatient_Pain_Registry_CR_approved_2022-2023