Background and Aims We have previously reported that the exposure of human mononuclear cells THP-1 to pulsed radiofrequency (PRF) electric field increased the mRNA for β-endorphin (J Pain Res 2018;11:2887–96), while it has not yet been clarified whether PRF application increases the production of acute inflammatory cytokines or chemokines from these cells. If the latter occurs, the beneficial roles of monocytic cells to recruit and stimulate the donor for acute inflammatory cytokines or chemokines from these cells.

Methods PRF was applied for 15 min at the maximum power by using a NeuroTherm NT-500 radiofrequency generator to the pellet of THP-1 cells sedimented in a microtube filled with the culture medium incubated at 37°C as previously described. (J Pain Res 2018;11:2887–96) After the PRF application, cell culture continued for pre-selected period and the supernatant of THP-1 cells was collected for multiplex immunoassay (Bio-Rad Bio-Plex #m500kcaf0y).

Results Level of RANTES, chemokine c-c motif ligand 5 (CCL5), as well as those of two acute inflammatory cytokines, IL-1β and IL-15, in the supernatant of THP-1 cells was significantly increased by PRF application as compared by those without application of PRF. Because RANTES plays an active role in recruiting leukocytes, and the latter cytokines stimulate the recruited leukocytes, the increase in the production of these cytokines/chemokines may enhance the beneficial action of PRF to alleviate pain.

Conclusions Exposure of THP-1 cells to the electric field of PRF for 15 min increased the production of RANTES, IL-1β and IL-15 from these cells.
Pain thresholds in the warm (painful warm) and the cold (painful cold) temperature were lower in CD patients in both the upper and the lower limb compared to controls. There was a statistically significant difference between the two groups regarding the cold pain threshold (16.4°C ± 7.5°C vs 12.1°C ± 9.0°C, p = 0.023) and a trend for a statistically significant difference regarding the warm pain threshold (41.9°C ± 3.2°C vs 43.3°C ± 3.3°C, p = 0.067) in the upper limb.

Conclusions Asymptomatic young CD patients show abnormal pain thresholds compared to healthy controls. Cohort studies are needed to describe the natural history of neuropathic pain and PN development in these patients.

Conclusions The majority of referrals and blocks are performed out of hours which can introduce significant delays. We aim to implement a dedicated block service for catheter insertion during daylight hours, and provision of single-shot blocks out of hours with a view to improving early access to regional anaesthesia for chest trauma.

Case report

**B187 SUCCESSFUL OUTCOME OF SPINAL ANAESTHESIA IN A PATIENT WITH A HISTORY OF SCORPION STING AND FAILED SPINAL ANAESTHESIA**

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Background and Aims Scorpion stings can cause failure of spinal anaesthesia (1). We report a case of successful spinal anaesthesia with bupivacaine laced with adjuvant drugs in a patient with history of scorpion sting and failed spinal anaesthesia.

**Methods** A 26 years old gentleman with a history of scorpion sting at 2, 20 and 21 years of age was operated twice for fracture of right femur and left tibia. First time he was administered general anaesthesia after the failure of spinal anaesthesia with bupivacaine and fentanyl. 3 days later, he was operated again for tibial plating. This time, he was administered spinal anaesthesia with a combination of 1.5 ml of 0.5% bupivacaine heavy, 1.5 ml of 5% lignocaine heavy, 15mcg of clonidine (0.1 ml) and 7.5% sodium bicarbonate (0.2 ml) to make a total volume of 3.3 ml. Spinal anaesthesia was successfully established.

**Results** The scorpion toxins cause repetitive action potentials and persistent depolarization of sodium channels in nerve axons (2,3). An antigen-antibody response also may cause competitive antagonism of sodium channels (1). We are not clear whether there is remodelling of the receptor resulting in resistance to local anaesthetics. Our presumption was that adjuvants can enhance the action of local anaesthetics and reverse this mechanism.

**Conclusions** In our patient with a history of scorpion sting and failed spinal anaesthesia, either one or a combination of the ingredients added to bupivacaine resulted in successful spinal anaesthesia.