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IMPLICIT BODY PERCEPTION AT THE PELVIC GIRDLE WITH THE TWO-POINT ESTIMATION TASK: A RELIABILITY STUDY

Halliday, Bradley

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Conclusions

A single SNP in each of the genes ANO10, P2RX7, PRKAG1 and SLC12A9 was associated with developing CRPS-1. Our genetic results suggest CRPS-1 pathogenesis may be different between the sexes. As all four genes are expressed in macrophages, and the P2RX7 SNP rare allele affects the function of NLRP3, we hypothesise that a person's risk of developing CRPS-1 can be caused by altered macrophage activity.

Implicit body perception at the pelvic girdle with the two-point estimation task: a reliability study

B Halliday, J Freeman, S Chatfield, J Marsden

University of Plymouth

Background & aims

Implicit body perception disturbance has been evidenced in low back pain (LBP) using the two-point estimation (2PE) measure. Previous research has only investigated unilateral LBP, not included a pain-free control group, or examined the measure at the pelvic girdle. Aims: 1) design a testing protocol suitable for assessing pain crossing the midline (central) 2) investigate regional 2PE reliability 3) compare left and right sides and lumbar and pelvic regions.

Methods

A central 2PE measure was designed and protocolised. Non-pregnant, pain-free adult women > 18 years old were recruited from a university setting. Participants were assessed with repeated 2PE measures (estimating distance between two points (120mm apart) on a digital calliper). 2PE data was collected via two online and two in-person sessions. In-person intra and inter-rater reliability of the 2PE was assessed using intra-class correlation coefficients (ICC). Differences between lateral (Left versus right) and central (pelvic girdle versus lumbar spine) were assessed using paired t-tests.

Results

22 women (mean age 40.5 +/-13.3) participated. 2PE demonstrated good intra-rater reliability with two repeated measures (lateral ICC=0.71 95%CI [0.49-0.87] / central ICC=0.80 95%CI [0.59-0.91]. Inter-rater reliability ranged from poor to good (lateral ICC=0.48 95%CI 0.58-0.75 / central ICC=0.65 95%CI [0.33-0.84]. There were no differences between the left and right lateral measures (p=.198) but the 2PE was greater for the lumbar compared to the pelvic region (p<0.005).

Conclusion

The 2PE task demonstrates good intra-rater reliability of a central and lateral measure. Differences in 2PE between regions may reflect somatosensory representation differences and may have implications for pain perception.