The easily performed “cough-trick” (CT) reduces pain during venipuncture (VP), although the underlying mechanism remains unclear” Usichenko et al (2019).

Abstract:

OBJECTIVES: The easily performed “cough-trick” (CT) reduces pain during venipuncture (VP), although the underlying mechanism remains unclear. The aim was to investigate the pain-reducing effect of CT during VP in comparison with two distraction methods, as well as under the influence of naloxone.

METHODS: 54 healthy male volunteers participated in 3 investigations. Pain during standardized VP with CT was compared to a “weak” distraction (squeezing a rubber ball; investigation 1; n=20) and to a “strong” distraction (inflating a tourniquet to a given pressure; investigation 2; n=21). In investigation 3 (n=13), pain at a VP without intervention was compared to pain at VP with CT under naloxone; pressure pain thresholds before and after naloxone administration were also measured. Pain was assessed using a 100 mm visual analogue scale. Data were compared within each sample using Student’s t-test for paired samples.

RESULTS: Pain intensity at VP with CT was lower than under “weak” distraction (mean difference 5 mm; 95% CI: 0.5 to 9.6; P=0.03). Pain levels under CT and “strong” distraction were comparable. There was no difference between pain under CT after naloxone infusion and pain without intervention. Pressure pain threshold decreased (mean difference 1 mm; 95% CI: 0.1 to 1.0 mm; P=0.02) after naloxone administration.

CONCLUSION: Pain-reducing effect of CT during VP is superior to that of simple motor distraction and equivalent to a complex distraction method. This might be due to the activation of segmental pain inhibitory pathways during coughing indicated through the lack of pain reduction due to CT under opioid antagonist blockage.

You may also be interested in...

Full Text

Reference:

Usichenko, T.I., Janner, H., Gagarine, M., Pavlovic, D., Lang, E. and Hahnenkamp, K. (2019) Mechanisms of “Cough-Trick” for Pain Relief during Venipuncture: An Experimental Crossover Investigation in Healthy Volunteers. Pain Research & Management. December 12th. doi: 10.1155/2019/9459103. eCollection 2019.