Effect of time and pressure factors on the cupping mark color

OBJECTIVE: To investigate the effects of the factors of time and pressure during cupping treatment on the cupping mark color, so as to provide scientific data and evidence for study on parameters and effect of cupping treatment. METHODS: Orthogonal experimental design was used with 12 stimulating parameters on 3 time levels and 4 pressure levels, cupping was given at 12 sites on the back of a same healthy subject, and 34 persons/times were completed in the experiment. The cupping mark color at each site was assessed 24 hours after cupping with a cupping mark color atlas, and the change law of cupping mark color was analyzed. RESULTS: There was a significant difference for the different parameters (P < 0.01). The time factor had statistically significant effect on cupping mark color (P < 0.05), showing 10 min >30 min >20 min. The effect of pressure factor on cupping mark color was significant (P < 0.01), showing -0.07 MPa > -0.06 MPa > -0.05 MPa > -0.04 MPa. CONCLUSION: The stimulation of 10 minutes and the pressure of -0.04 MPa produces a marked ecchymosis on the cupping site, getting darker and darker along with increase of the stimulation intensity; the effect of pressure factor on cupping mark color is the largest with a linear relationship, which can be expressed as Y (cupping skin color) = 2.025 + 0.902 x 100 x negative pressure absolute value (-MPa); while the effect of time factor on cupping mark color is more complicated, which is possibly related with the cupping site.

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