

Comparison of Temperature Changes Following Sympathetic Blocks in Warm and Cold Subtypes of Complex Regional Pain Syndrome

Burcu Candan, MD. Semih Gungor, MD.

INTRODUCTION

- Since the mechanism of temperature asymmetry is different in warm and cold CRPS patients, the response of these CRPS subtypes to the lumbar sympathetic block and the improvement in temperature after LSB can differ.
- We evaluated whether there is a difference in temperature elevation following sympathetic blocks in patients with warm and cold CRPS subtypes and whether the temperature elevation is considerably higher in the cold CRPS subtype following the sympathetic block.

METHODS

- We calculated the temperature difference by analyzing the thermal camera FLIR images of the affected extremity at pre-block and post-block (5-minute) time points.
- The primary target outcome was that the mean temperature increase following the LSB in the cold-CRPS group tends to be higher than in the warm-CRPS group.
- The secondary target outcome was that the mean temperature elevation following the sympathetic block in the cold CRPS subtype is at least 50% or higher than the warm CRPS subtype.

RESULTS

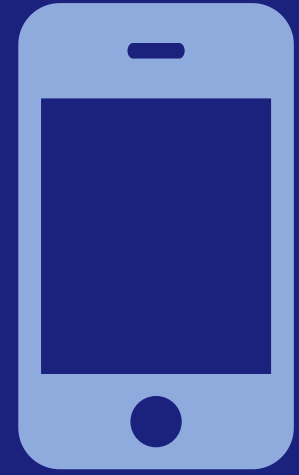
- The cold-CRPS patients demonstrated a higher mean temperature increase at the 5-minute time-point following LSB.
- The mean temperature elevation following the sympathetic block in the cold-CRPS subtype was more than 50% higher than in the warm-CRPS.

DISCUSSION

- Our results confirmed the hypothesis that the cold CRPS subtype patients achieve higher temperature improvements than warm CRPS subtype patients following a sympathetic block.



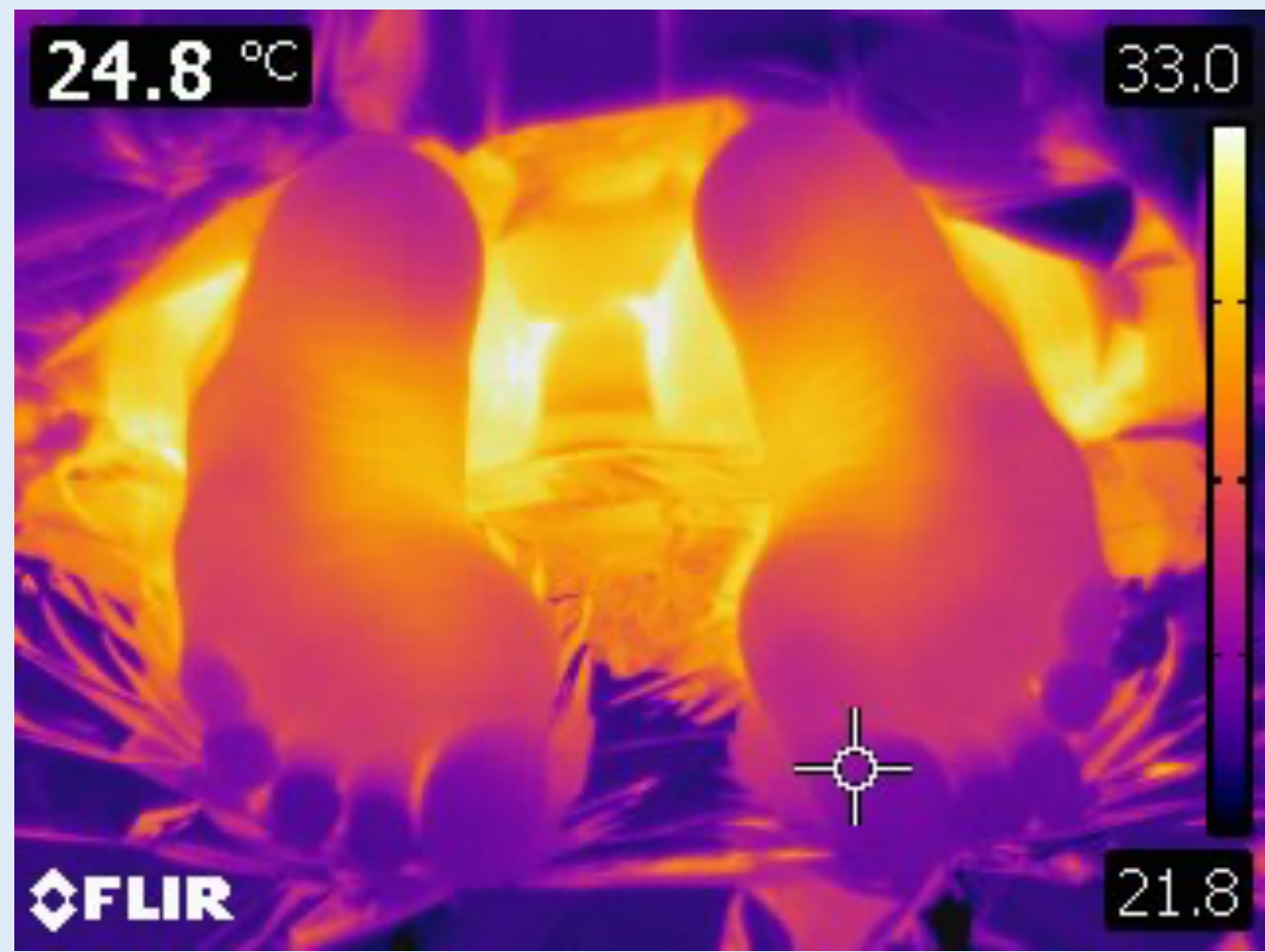
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The cold-CRPS subtype demonstrated a higher temperature increase than the warm-CRPS subtype following a lumbar sympathetic block

FLIR Thermal Camera Images

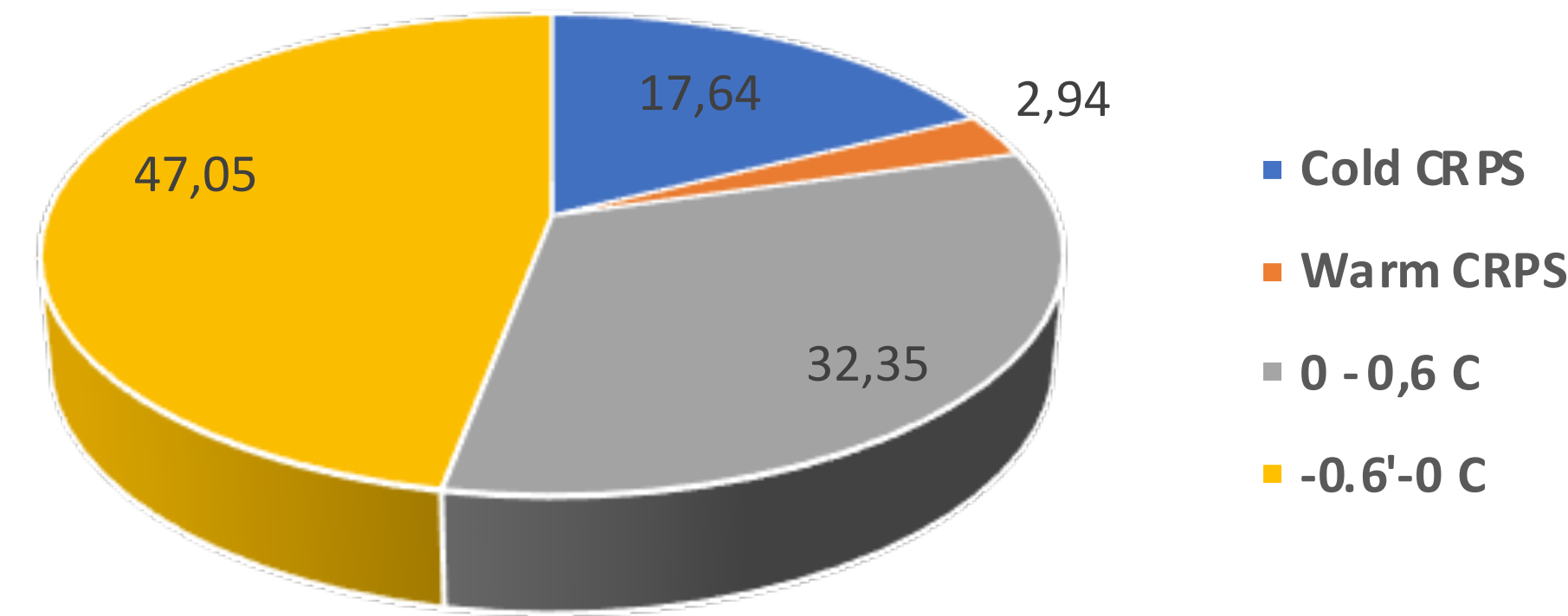
Pre-LSB



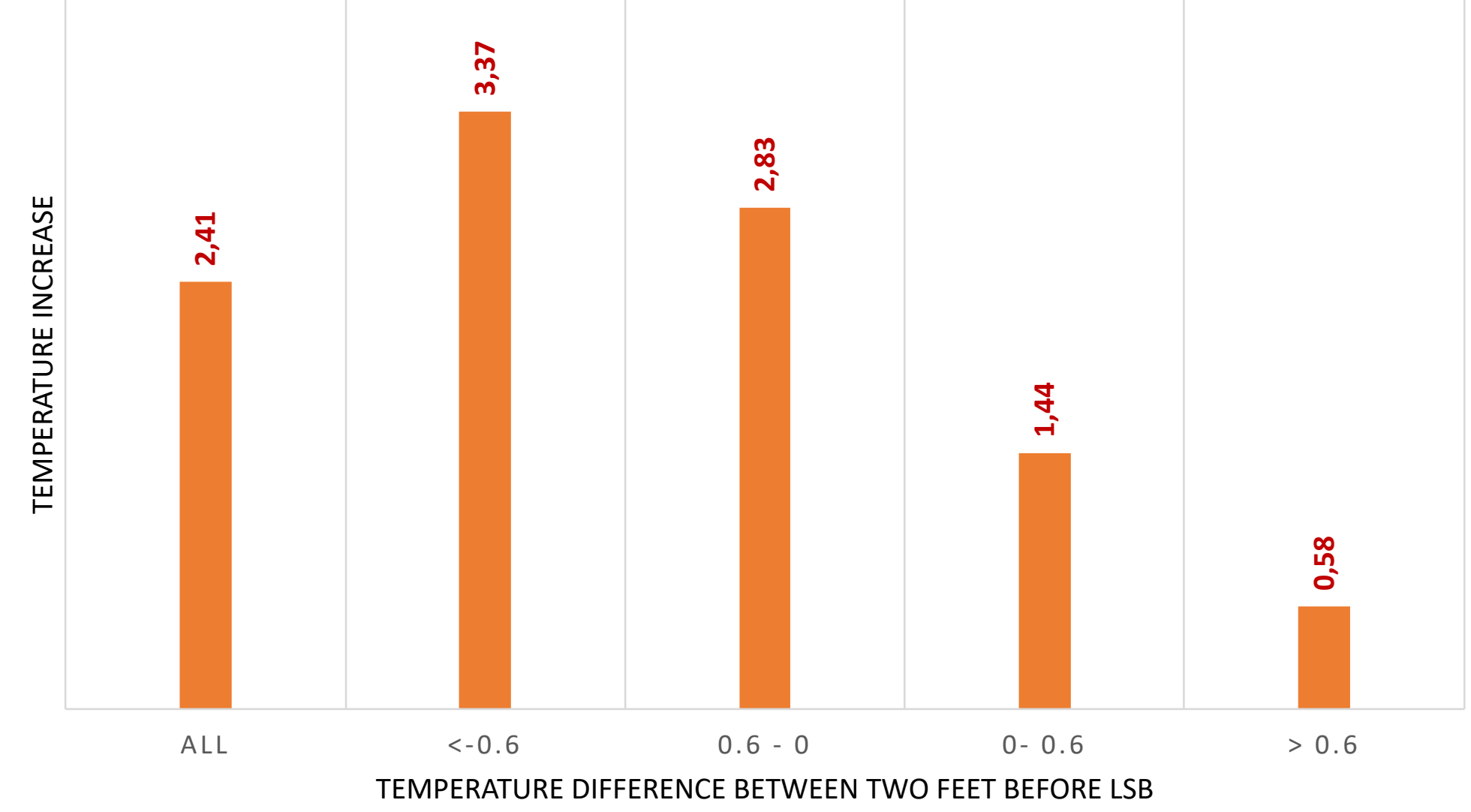
Post-LSB



Distribution of Patients-(%)- Initial LSB



POST-LSB TEMPERATURE INCREASE (°C)-INITIAL LSB



POST-LSB TEMPERATURE INCREASING RANGE-INITIAL CASES

