



STUDY OF THE FABRIC WITH INVEL BIOCERAMICS IN THE FORM OF A T-SHIRT IN THE MANAGEMENT OF PAIN OF INFLAMMATORY CAUSE

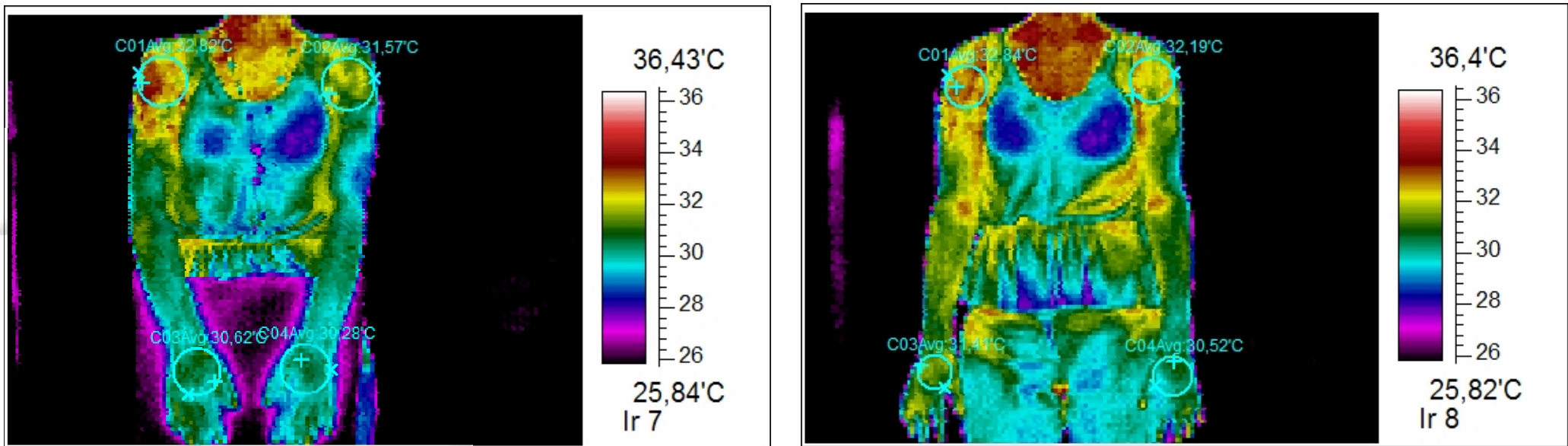
Introduction

Tendinitis is an occupational disease caused by inflammation of a tendon, which usually appears after excess repetitions of the same movement. It causes very intense pain, and may result in physical impairment. The warning signs include numbness on the fingers, cold hands, and difficulty to perform simple tasks, such as pressing a button. This inflammation may be due to one of the two following causes:

- 1. Mechanical - prolonged and repetitive efforts, in addition to overload.
- 2. Chemical - dehydration, when the muscles and tendons are not sufficiently drained, the incorrect supply and the toxins within the body may lead to tendinitis.

Tendinitis initially manifests with pain, and often with the person’s inability to perform certain movements.

Tendinitis in the right shoulder



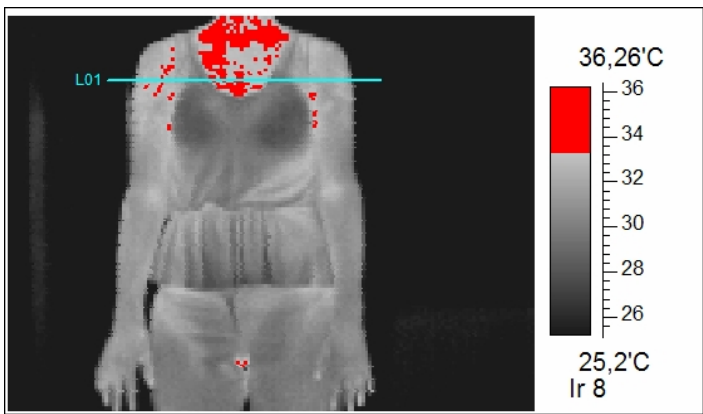
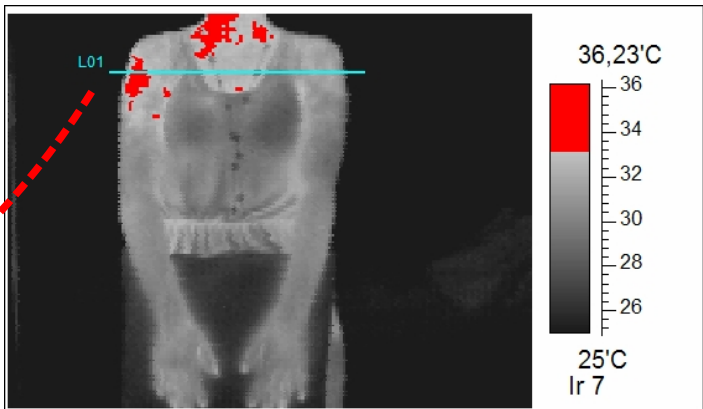
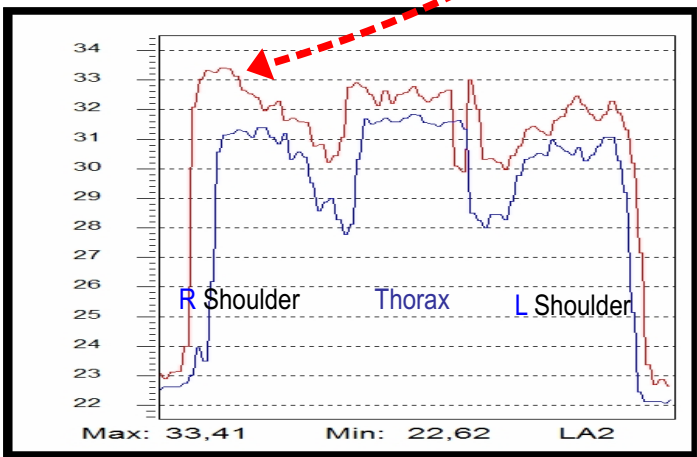
Method

An infrared examination was performed for the management and documentation of inflammation in the right shoulder. The patient wore a sleeved Invel Bioceramics T-shirt for 20 minutes. Then, another infrared examination was performed.

By plotting a thermal line across both shoulders and anterior thorax, a greater temperature is observed ($>33^{\circ}\text{C}$) in the inflamed right shoulder (red line). With the use of the Invel Bioceramics fabric in the form of a T-shirt for 20 minutes, there was a decrease in this temperature ($<31.5^{\circ}\text{C}$), with a tendency of rectification of the thermal plateau in both shoulders (homogenization in perfusion).



T-shirt made with the fabric incorporated with Invel® bioceramics (infrared emitter)



There was a 2.2°C decrease in the mean temperature of the inflamed right shoulder. In the poorly vascularized tissue, the Invel Bioceramics fabric increases local perfusion, thus increasing the temperature; however, when used over a very well irrigated tissue due to a local inflammatory process, the Invel Bioceramics fabric tends to reestablish the normal local temperature.

Conclusion

The Invel Bioceramics fabric improves perfusion in tissues, both in the case of:
Less irrigation (localized fat)
Greater irrigation (inflammatory process)
The Invel Bioceramics fabric can be an auxiliary method in the management of inflammation.
The Invel Bioceramics fabric can be an auxiliary method in the management of pain caused by inflammation.

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