

CHAPTER 6

CONCLUSION

The study of DOMS's characteristics showed that eccentric exercise of the wrist extensors induced DOMS with affected on the sensory perception and motor function. This study could be useful for considering the time course and measurement outcomes for future studies of the DOMS in the wrist extensors.

Preventative studies showed that PNF stretching prior to exercise could reduce the symptoms of DOMS, especially cold pain threshold, ROM, and muscle strength. It suggests that applying PNF stretching prior to exercise can help to attenuate symptoms of DOMS in the wrist extensors. Massage intervention prior the exercise affected changes in ROM after eccentric exercise of the wrist extensors, but did not affect other variables. It is supposed that prophylactic effects of massage on eccentric exercise-induced muscle damage of the wrist extensors are limited. However, if an attenuation in ROM are crucial for rehabilitation and/or training of the wrist extensors, massage may be a useful intervention, since massage is a manually method, more accessible, and more convenient than other modalities. Application of hot pack on the wrist extensor muscle prior the exercise affected changes in pressure pain threshold, ROM and wrist extensor strength in this present study. The attenuation of DOMS's symptoms was generated by the hot pack. The intervention of hot pack is a practical use, since hot pack is relatively cheaper, more accessible, and more convenient than other heating modalities such as short wave diathermy, microwave, and ultrasound. The study demonstrated that sauna intervention prior the exercise can

minimize the symptoms especially ROM and muscle strength. The finding is quite useful for an application of sauna before the exercise to attenuate the symptoms of DOMS in the wrist extensors. From the finding, it suggests that the athlete or a person who is going to do unaccustomed exercise, warming up with sauna is one of the ideas to minimize the symptoms of muscle damage.

In conclusion, this thesis study found that applying PNF-stretching, massage, hot pack or sauna prior to the exercise provided the positive effects on sensori-motor function. Preventative interventions, especially the heat application such as hot pack and sauna seem to provide an overriding positive effect on ROM and muscle strength. Beneficial effects of these preventative methods (i.e., PNF-stretching, massage, hot pack and sauna) should be considered for attenuating the signs and symptoms of DOMS following exercise induced-muscle damage in fields of rehabilitation and sport training.