

CHAPTER V

CONCLUSION

This study was conducted to investigate the effect of two 5-HT receptor subtypes, i.e. 5-HT_{1A} and 5-HT_{2A} receptors, on nociceptive modulation in thermal and chemical pain models. The results showed that activation of 5-HT_{1A} receptor could produce antinociceptive effect whereas the reverse was observed in animals receiving 5-HT_{2A} receptor agonist. In addition to the behavioral observation study, these effects were supported by the pattern of noxious stimulation-evoked FLI in spinal dorsal horn neurons. However, since the degree of changes in the FLI density did not reach the statistical significance, more data are necessary before the conclusion can be made.

Based on these results, it can be concluded that the nociceptive modulating action of 5-HT in the spinal cord can be varied depending on its receptors. These data provide a better understanding about the roles of this transmitter in pain modification. With more knowledge in this regard, it is possible to develop more selective pharmacological intervention in order to control pain at various levels of nociceptive transmission.

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