

## CHAPTER V



### CONCLUSION AND RECOMMENDATION

Both bupivacaine hydrochloride and lidocaine hydrochloride significantly interacted with the mixed lipid films and the mixed lipids - protein films, except the action of lidocaine hydrochloride at pH 5.9 was not significant especially at the mixed lipid films composed of 1:3 and 2:2 area ratios of egg lecithin and cholesterol. The interactions of bupivacaine hydrochloride with the films were greater than the action of lidocaine hydrochloride, particularly at pH 7.2. The results corresponded to Shanes' suggestion and medical reports shown that bupivacaine had more potency than lidocaine. It is quite difficult to estimate exactly how much the potency of bupivacaine is more than lidocaine, even many medical reports said it differently, some said bupivacaine had the potency more than lidocaine 2 - 4 times. If the infiltration dose of bupivacaine used in the present is 3 - 4 times less than the infiltration dose of lidocaine, the topical dose of bupivacaine may be only 1-2 times less than lidocaine dose, because the interaction of bupivacaine with the films at pH 5.9 was not as much as the interaction at pH 7.2. However the results will be useful guideline for further clinical studies to estimate the exact topical dose of bupivacaine ,