CHAPTER VI

CONCLUSIONS

In conclusion, our experiment showed that AR root extract may be able to prevent bone loss. It was considered as the results of prevention decrease of femoral length, thickness and weight after AR administration. Femoral histology showed the preventive effect of AR root extract as demonstrated restoration of trabecular bone with more trabecular thickness and trabecular area and less intertrabecular space. The decreased in biochemical markers as β-CTx and P_1NP and decreased in ALP level correlated to the femoral histology in groups treated with AR. It was suggested that the osteoprotective effect of AR root extract may be act by modulate osteoblast and osteoclast activity. In addition, AR root extract had no significant effect on uterine weight. Histology of uterus and mammary gland showed no signs of proliferation after treatment with AR root extract. No proliferation can be considered as a safer choice for alternative treatment for osteoporosis in comparison to other available supplements of hormones which increased a risk factor for the progress of undesirable side effects on the reproductive organs. However, the mechanism of AR root extract to prevent bone loss is not clearly known and there is still unknown which particular active ingredient has benefit in preventing osteoporosis. Further study should be investigated the major phytochemicals in the ethanolic extracts of AR and its mechanism for preventing osteoporosis.