

CHAPTER VII

CONCLUSIONS

- It had been confirmed that *P. mirifica* phytoestrogens influence the vaginal epithelium, part of the female reproductive organ, in the ovariectomized rats.
- It was found that the wild *P. mirifica* collected from 25 provinces located in the north, northeastern, central and southern part of Thailand exhibited highly estrogenic activity, especially at the dose of 1,000 mg/kg BW/day.
- The estrogenic potency were ranked by 2 parameters; day of appearance of cornified cell and duration of cornified cell. From this study it was found that *P. mirifica* from Kanchanaburi exhibited the strongest estrogenic activity that related with the regional distribution and *P. mirifica* from Uttharadith showed the lowest estrogenic activity.
- The uterus weight was increased in a dose dependent manner. But the rat body weight was decreased in a dose-dependent manner.
- Histological study of liver in rat treated with Kanchanaburi showed no sign of abnormalities it may suggest, even if the dosage is as high as 1,000 mg/kgBW/day that *P. mirifica* has considerably safety for human use.
- This study should be a conventional guide to select the plant with a comparable estrogenic effect with E_2 . This will open a possibility to introduce the plant product to be used for an alternative to ERT (Estrogen Replacement Therapy) in menopausal women.

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Perspectives of the studies

The results from our study should be a conventional guide to search for plant materials or set up a plantation of *P. mirifica* with high estrogenic activity to serve such demand. The simplified method present in our study is a conventional method with a similar pattern as did by human oral consumption of the plant product. It could be adapt for human consumption. Evaluation for the high quality material as a key of success in such development and it could be practically reaced by our established protocols.



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