CHAPTER 5

CONCLUSIONS

In conclusions, our results showed that Emdogain stimulated osteoclast formation in the coculture of osteoblast-like cells, MG63 and PBMCs. In addition, we found that Emdogain acted on osteoblastic cells to increase the RANKL/OPG ratio. Taken together, the data suggested that a local increase of RANKL and a decrease of OPG levels in the bone microenvironment may be an important component of the paracrine mechanisms by which Emdogain induces bone resorption and accelerates bone remodeling. There are some methodological limitations in the present study that should be considered when interpreting the results. For example, the number of samples and the methods in determining mRNA levels actually affect the results. Future experimental work should be carried out by increasing sample sizes and investigation of other factors affecting the osteoclast function and apoptosis. To gain more information on the effects of Emdogain on bone remodeling, the further study should also be conducted in various stages of osteoblast differentiation. In addition, the data of the effects of various concentrations of Emdogain on cell behaviors would provide a sound basic knowledge for future clinical use.