

Search of a natural substance with the hair growth using a hair follicle organ culture Department of Biochemistry-Metabolic Science

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The *glechoma hederacea* subsp. *grandis* (*G. grandis*) is used as a herbal medicine and is supposed that the extract at the time of the bloom shade-drying is effective against a child's convulsion. Moreover, it may be considered as reduction of blood sugar level. In this study, the clinical test of the hair growth facilitatory effect of the *G. grandis* extract in people during one to three years was found remarkable improvement and a little improvement by evaluation at 95% (41 persons among 43 persons). In a mouse, the sex difference was seen. With the mouse, the tendency for hair growth was promoted compared with a control (physiological saline). Furthermore, we used the hair follicle organ culture system for the hair growth promoting substance from *G. grandis* extract. As a result, *G. grandis* in the growth phase after the bloom was remarkable growth effect, and found out having the remarkable hair growth effect in a fraction of aqueous phase from the extract especially. This aims at the establishment of the hair regenerative technology which utilizes the natural plant, *G. grandis*. It is possible to apply to the baldness and the alopecia caused by various causes, and the depilation prevention action, trichogenous, and the hair restoration action improve synergistic and it is effective as the external application medicine for the head with high safety compared with the scalp.