

5th International Conference and Exhibition on

Pharmacology and Ethnopharmacology

March 23-25, 2017 Orlando, USA

Longgu (Fossilia Ossis Mastodi, dragon bone) changes the component profiles in Keishikaryukotsuboreito (Gui-Zhi-Jia-Long-Gu-Mu-Li-Tang)**Kazuki Oguri and Kyoko Takahashi**
Osaka University, Japan

Longgu (*Ryu-kotsu*, *Fossilia Ossis Mastodii*, *Os Draconis*, or dragon bone) is the only fossil crude drug listed in the Japanese Pharmacopoeia, which defined as "the ossified bone of large mammal." It is used as sedative component in *Keishikaryukotsuboreito* (KRB) formula in Kampo medicine (Traditional Japanese Medicine). In Japan, all *longgu* is purchased from People's Republic of China. *Longgu* resources are facing the threat of depletion. Effective countermeasures are urgently required. However, information is insufficient about role of *longgu* in Kampo formulas. We investigated the significance of *longgu* in KRB formula, which comprises seven crude drugs. We analyzed the components in KRB decoction using inductively coupled plasma mass spectrometry and gas chromatography. Slight inorganic components and no organic ones were detected from single decoction of *longgu*. The organic component profile of KRB decoction is different from that of *longgu*-free KRB decoction. The result of scanning electron microscopy with energy dispersive X-ray spectroscopy showed that decocted *longgu* captured organic materials at its uneven surface with small pores. We hypothesized that *longgu* adsorbs the components on its surface. The decocted *longgu* were submitted into solid state NMR and nitrogen adsorption measurements. The results of them showed that KRB-decocted *longgu* had smaller water content and specific surface area than raw and single decocted *longgu*, respectively. These results supported our hypothesis. We suggest recycling of *longgu* as one of the countermeasure for depletion though development of purging methods is needed.

Biography

Kazuki Oguri is pursuing his PhD from Osaka University. He got a license for Japanese Pharmacist in 2013. His research focuses on *longgu*, one of the crude drugs used in Kampo medicine (Traditional Japanese Medicine). He has published three papers in journals.

k-oguri@phs.osaka-u.ac.jp

Notes: