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## **DID CHIEFS WHO BURIED IN A KOFUN BURIAL MOUND ACTUALLY RIDE HORSES?**

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As Japan is an islands country, cultures, domestic animals and cultivated plants which were introduced from the Eurasian Continent have always given a great impact to Japanese culture. Japanese horses also originated Mongolian Plateau. Horses were brought to Japan in the fifth century through Korean Peninsula by immigrants during the Kofun Period (third to seventh century). Afterwards horses were bred in Japan, as several pasture remains, and many horse tacks were found mainly inside of Kofun burial mounds. Moreover, number of horse shaped Haniwa clay dolls were ritual artifacts and were arranged around a Kofun burial mound. During Kofun Period, horses were symbols of authority. Central government granted horses to local clans exchanging with fidelity. Naturally, horses were symbol of authority for chiefs of local clans, as well. Some individuals who were buried in a Kofun burial mound had femurs with extraordinary developed linea aspera. The linea aspera is a major insertion of adductor muscles of the thigh. Development of osteo partsis usually lead by muscle development of where the muscles originated or inserted. Therefore, several morphologists pointed this character was likely to relate with horse-riding. The purpose of this study was to evaluate which muscles were mainly used during horse-riding with Kofun style harness. Subjects for experimentation were six people who had a good horse-riding experience at least 45 years' career. The subjects rode a horse with Kofun style horse tacks for two hours. After horse-riding the subjects have been palpated their thigh, and interviewed. All of the subjects always felt muscle pain only on the adductors. They said they needed to hold tighter horse body between their knees when they used Kofun style harness than present harness. Extraordinary developed linea aspera of femur was not common for individuals who buried in a Kofun burial mound. Although the chiefs mounted horses to display the authority, most of them were not riders.

### **Keywords**

horse-riding, Japan, femur, musculoskeletal, stirrup

### **Note/comment**