A Note on Shovel-shaped Incisor, Instanding Lateral Incisor and Occlusal Type of Incisors in Koreans

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Hrdlicka reported that the shovel-shaped incisors were rare in whites and negroes in contrast to the frequent occurrences in mongoloid populations, i.e., Chinese, Japanese, Mongolian, Eskimo and American Indian. Since his publication there have been a number of reports on the incidence of shovel-shaped incisors by various investigators. On the other hand, it has been reported that the Carabelli cusp and the third molars were rare in mongoloid populations and that the mandibular torus and the edge occlusion of the incisors occurred more frequently in the same races. Recently Oschinsky and Smithurst, and Oschinsky reported that the instanding lateral incisors were limited to the Eskimo area and Japan and suggested that there seemed to be similar frequency in other mongoloid populations in Asia.

The present authors studied the shovel-shaped incisors, instanding lateral incisors and occlusal types of incisors in Korea. The study was made on Korean university students, 494 males and 466 females, ranging from 16 to 31 years of age. In describing the types of incisors, the present authors adapted the classification by Hrdlicka: marked shovel, semi-shovel, trace shovel and no shovel. Instanding lateral incisors were classified into those of the right, left and both sides. Occlusal types were classified into 3, i.e., labiodont, overbite and protrusive.

As shown in Table 1, the shovel-shaped incisors, inclusive of the marked shovel and semi-shovel, were observed in 95.5% of males and 87.1% of females. The incidence in males was higher than that in females. Comparing these figures with those of whites and negroes, one finds that the incidence is much higher among Koreans as it is in the Eskimo, American Indians, Chinese and Mongolians.

Table 2 shows that the incidence of instanding lateral incisors is greater in females, 21.9%, than in males, 14.2%. It is interesting that the incidence for the right side is greater than that for the left side in both sexes. Average for both sexes, 17.9%, is lower than that in Eskimo, 33%, but higher than that in Japanese, 5 to 10%.

As shown in Table 3, there was no noticeable sexual difference in the occlusal type. The labiodont type occurred in 4.4%, the highest incidence as in Eskimo, the overbite type occurred in 0.9% and the protrusive type, 0.5%, and these two figures are slightly higher than that in Eskimo.

Summary

The study was made on shovel-shaped incisors, instanding lateral incisors and the occlusal types of
incisors in 960 Koreans and the following conclusions were drawn.

1) The incidence of both marked shovel and semi-shovel is greater in males, 95.5%, than that in females, 87.1%.

2) The incidence of the instanding lateral incisors is greater in females, 21.9%, than that in males, 14.2%.

3) There appears to be no sexual difference in occlusal types of the incisors. The incidence of the labiodental type is 4.4%, of the overbite is 0.9%, and of the protrusive is 0.5%.

REFERENCES