BRIEF COMMUNICATION

A Preliminary Report on Ritual Ablation of Anterior Teeth in Modern Kenyan

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Abstract Recently, the authors visited the Republic of Kenya to have preliminary contact for developing a new research project on culture and dental disorders. During this tour, traits of tooth extraction in the mandibular anterior region were observed in eight people from four tribes. Hearing directly from these people, it was confirmed that the tooth extractions were done for ritual reasons at around six years of age by an elder person (Mzee) using a knife (Kisu). From the facts that the youngest case was 25 years old, and that the one who was 30 years old eagerly wanted to have the space repaired by false teeth, the new wave of modern culture seemed to reach the peripheral part of Kenya, and the ritual ablation of the teeth was considered to be terminating. In the present paper, preliminary information on ritual ablation in living populations was reported. Detailed quantitative information will be presented when the above-mentioned project comes to be achieved.

Key Words Ritual ablation of teeth, Current age, Living population, Kenya

Introduction

Since KOGANEI (1918) first reported on the existence of ritual ablation of the front teeth in the Japanese of Stone Age, many papers regarding the traits of ablation observed in skeletal populations appeared. In 1953, SINGER reviewed papers which dealt with ritual ablation in living people mainly in Africa, discussing on the reason for ablation, the time and method of operation, as well as the kind of tooth to be extracted in each tribe on the basis of information obtained by hearing directly from living people.

INOUE, one of the present authors, and a colleague also reviewed the long history of investigation of the ritual tooth ablation very briefly.
in a previous paper (INOUE and KOCHI, 1987). The theme of ritual ablation still seems to be a matter of interest, and several contributions are being added (NAKAHASHI, 1990; INOUE, 1990). However, there is very little information on the ritual ablation in the living population, so that the reason, time and method of operation are usually discussed only on the osteoarchaeological basis.

Recently, the authors visited the Republic of Kenya to have preliminary contact for developing a new project of cultural, morphological, dental pathological, and health scientific researches. During the tour, several persons who had some of their anterior teeth extracted for ritual reasons were observed, and some information different to previous interpretations on the age of ablation, method of extraction and the reason for this rite was obtained.

In the present paper, preliminary information is reported, because there were very few occasions where we could observe the living people accompanied with the traits of ritually ablated teeth, and it seems to be a matter of importance to obtain such kind of informations for interpreting the facts in skeletal populations. After the completion of the study, we hope to compile all our information into a single report.

**Subjects and Methods**

The subjects of the present study were the people whom the authors met at Nairobi and the northern and western parts of the Republic of Kenya, during the preliminary investigation into their culture and dental disorders from March 25 to April 3, 1991. The method of study was not specially designed, but just to observe their dentition and to ask about the ritual of ablation of the front teeth.

**Results and Discussion**

As shown in Table 1, eight cases of ritual ablation were observed. They consisted of six males and two females from four tribes (FEDDERS and SALVADOR, 1979), namely the Kalenjin (Southern Nilotic), the Samburu (Eastern Nilotic), the Luo (Western Nilotic) and the Luhya (Western Bantu). The teeth extracted were mandibular central incisors on both sides in seven cases (Figs. 1 and 2), and six anterior teeth of mandible in a case from the Luo. These pattern of extraction were essentially the same to those reported by SINGER (1953), and were classified as Type I according to INOUE and KOCHI (1987) and INOUE (1990).

The reasons of extraction in these eight cases could be classified into two groups, one is just the custom of their belonging tribes, and another is to prepare for some emergencies. Three cases, one from the Kalenjin and two from the Samburu, testified that it is simply because of rite. The one from the Luo explained their six teeth extraction pattern as a tribal mark which helps for some one to identify his tribe when he died at a place out of his territory, for instance. These interpretations of these four cases seem to be quite natural and traditional ones as compared to the previous reports with regard to the skeletal populations. However, the three cases from the Kalenjin said that it is to secure a space to pour water or milk through clenched teeth in the case of tetanus. The last one from the Luhya stated almost the same reason to that of the Kalenjin, but a bite by snake was supposed as the cause of the teeth clenching. These reasons may hardly be come to mind from studies only on skeletal remains, and that is a reason why information from living people is important.

According to the people who experienced the ablation, the tooth extraction was done in the following manner. Namely, the children aged around six years old were called together, and the elder man of the tribe (Mzee) extracted their teeth. The extraction was carried out in such a
manner that a small knife (Kisu) is inserted between two teeth, and then the knife is moved jimmyingly and joltingly to loosen the teeth out. The principle of this method of tooth extraction is common with those in modern dentistry, and not likely the expression “knocking out” that appears in the previous papers (SINGER, 1953).

In the most of the previous reports, the time of extraction was estimated as young adulthood or puberty but it was about six years of age in all the cases observed, except the Luo people who have to wait for the time of the eruption of the canines. It is one of the remarkable difference between the present report and the previous ones.

Another matter of importance is the fact that the extraction spaces have not dominantly closed in most of the cases as shown in Figs. 1 and 2. As the present authors have previously pointed out, the extraction space could not be closed automatically in proportion to the lapse of the time, but it closes under the pressure caused by the tooth-to-denture-base discrepancy (INOUE and KOCHI, 1987). This interpretation seems to be supported by the unclosed spaces observed in the present study.

Finally, the range of the age of observed cases

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**Table 1. Cases accompanied with ritual ablation of front teeth**

| No. | Tribe  | Sex | Age | Ablation | Reason   | Occupation         |
|-----|--------|-----|-----|----------|----------|--------------------|
| 1   | Kalenjin | male | 42  | 1 1      | Tetanus  | Technical school teacher |
| 2   | Kalenjin | male | 38  | 1 1      | Tetanus  | Pastor             |
| 3   | Kalenjin | male | 30  | 1 1      | Ritual   | Officer            |
| 4   | Kalenjin | female | 25 | 1 1      | Tetanus  | Primary school teacher |
| 5   | Samburu | male | 32  | 1 1      | Ritual   | Gatekeeper         |
| 6   | Samburu | male | 25  | 1 1      | Ritual   | Night watch        |
| 7   | Luo     | male | 45  | 32 1 123 | Tribe mark | Guide               |
| 8   | Luhyaa  | female | 41 | 1 1      | Snake    | Housekeeper        |

**Fig. 1.** A case of mandibular central incisor extraction on both sides. Case No. 1, 42-year-old male from the Kalenjin. No space closing is observed.
was from 45 to 25, which means that the extraction in these cases was carried out at least 20 years ago. It seems suggestive that the ritual might be terminating also in Kenya, as it occurred in Ainu about a hundred years ago under the influence of inflow of new culture (INOUE, 1990). Another fact that a case of 30 years old from the Kalenjin wanted seriously to have the teeth again, and eagerly asked us how he could repair the extraction space, may support the possibility of termination of the rite.

In the present observations, many differences exist in the information and interpretations as compared to the previous reports on skeletal populations. However, it was hard to present any numerical data such as prevalence or distribution of tooth ablation because of the lack of population parameter. A detailed and more scientific report will follow when the above-mentioned project comes to be completed.

Conclusions

1. Traits of the ritual ablation of the teeth were still observed among living people in Kenya.
2. The pattern of tooth extraction was in accordance with that reported by SINGER.
3. The reason of the ritual seemed to have been modified under the influence of inflow of new culture.
4. The time of extraction of the teeth was at six years of age which did not agree with the previous papers.
5. Tooth extraction was operated by use of a knife, which did not agree with the methods reported in previous papers.
6. The opinion of the present authors that the extraction space is not closed in proportion to the lapse of the time seems to be supported by the unclosed spaces observed in the present study.
7. The rite of tooth extraction seems to be terminating today.

抄 录
現代ケニア人における抜歯風習

井上直彦・坂下玲子・野崎中成・亀谷哲也

最近，ケニアを訪れる機会があった。現代ケニアにおける文化、身体形態、歯科疾患、保健環境などに関する総合的な調査を行う可能性を採るための予備調査で、ナイロビを中心に西部から北部辺境部にか
けの諸部族と接し、一部のものの間の中を観察
した。その際、Table 1 に示すように、8人のものに
風習による抜歯痕が見られ、また、この風習の意味
や抜歯の時期と方法などについての聞き取りを行う
ことができた。

抜歯痕が認められたものは、4部族8人で、このう
ちルオ族の1人を除く7人では下顎両側中切歯が、
またルオ族の1人は下顎両側の6 前歯が抜去されて
いた。拔歯の理由は、単なる風習であると考えてい
るもの4人、破傷風あるいは蛇に噛まれた場合に、
歯の食いしばりがあっても水あるいは牛乳を流し込
むことができるようにというもの4人であった。拔
歯の時期は6歳頃で、長者が子供達を集めて、小刀
を2本の歯の間に差し込んで歯を動揺させて抜くと
いう。今回の観察例の中で、若年少者は25歳であっ
たが、30歳の男性の例では、今となっては歯が欲し
いといって、補職の方法で聞いてきたものがあった。
現代文化の影響がケニアの边境部にまで浸透してき
たことを示すものと考えられ、この地における抜歯
風習の終焉も間近いように思われた。

まったくの偶然によって得られた情報であり、資
料は必ずしも十分ではないが、生体における抜歯例
の観察を通じて、抜歯の時期、方法、抜歯習慣の意味、
及び抜歯空隙の閉鎖と歯と顔の不調和との関係な
ど、古人骨標本の観察結果から推定されてきたこと
とは異なる点が認められたので、とりあえず報告した。

上記の総合的な調査が実現すれば詳細な情報が得ら
れることが期待できるので、その段階では改めて報
告したい。

References

FEDDERS, A. and C. SALVADORI, 1979: Peoples and
cultures of Kenya. Trans-Africa Book Distributors,
Nairobi, pp. 162-163.

INOUE, N. and S. KOCHI, 1987: Ritual ablation of
anterior teeth in recent Ainu. J. Anthrop. Soc.
Nippon, 95: 305-324. (In Japanese with English
summary)

INOUE, N., 1990: Termination of ritual ablation of
tooth in recent Ainu. Shikai Tenbou, 76: 1089-1104,
(In Japanese)

井上直彦, 1990: 近世アイヌにおける抜歯風習の
終焉。歯科展望, 76: 1089-1104。

KOGANEI, R., 1918: On the existence of custom to
eXtract maxillary canines in Japanese Stone Age. J.
Anthrop. Soc. Nippon, 33: 31-36. (In Japanese)

小金井良精, 1918: 日本石器時代人に上犬歯を抜
き去る風習ありことに就いて。人類学雑誌, 33:
31-36。)

NAKAHASHI, T., 1990: Ritual tooth-ablation in Doiga-
hama Yayoi People. J. Anthrop. Soc. Nippon, 98:
483-507. (In Japanese with English summary)

SINGER, R., 1953: Artificial deformation of teeth: A
Preliminary report. South African Journal of Science,
50: 116-122.

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