

Forgotten Forensics: Enamel Choumps-Case Report and Review

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Abstract

From the various forms of body decorations and mutilation which are seen in different societies, mutilation and adornment of the teeth and oral soft tissues comprise a group of practices of obvious forensic significance to dental students and practitioners and among them the art of tattooing tooth have been practiced all over the world since ages. Tattooing is an increasingly common form of self-expression, especially in the young adult population. The positive identification of living or deceased persons using the unique traits and characteristics of the teeth tattooing is a pillar of forensic science. As an adjunct to the previously published literature on enamel choumps, the present report provides an insight into more patterns of enamel choumps, instruments and procedures done to make choumps and discusses the myths and beliefs associated with this practice.

Keywords: Enamel Choumps, Tattooing, Forensics, Ferua

Introduction

Decoration and mutilation of the human body are carried out for a variety of reasons ranging from motives related to aesthetics, self-expression and concepts of beautification to motives which are extremely complex like superstitions, punishment, spiritual and religious. The concept of decorating or enhancing teeth is actually very ancient and continues to be performed in some contemporary societies. The earliest known evidence of drilling human teeth dates from 7500–9000 years ago around 500–900 AD practiced by the Mayan civilization. In ancient times, Native Americans alters the look of their teeth by carving grooves and notches on teeth and putting semiprecious stones in them to bring brilliance to their smile. It was thought to be a kind of tooth jewelry by them.^{1,2,3,4,5} Teeth were stained by women with some black material in some parts of China and Japan. It was done as part of their beauty regimens and in many cultures teeth may be bordered in gold. Gold teeth are especially common in Latin America and the Caucasus. Convenience samples of the general adolescent populations indicate that between 10% and 30% of adolescents or young adults currently have a tattoo and that up to half of non-tattooed young adults are considering getting a tattoo.^{1,2,3,4,5}

By examining the dental traits in the form of these tattoos, grooves, carvings and adornments or mutilatory practices, it is possible for the odontologist to provide the corpse with its identity and satisfy a basic societal need. Choumps are a rare type of tooth tattoo made in gold and are placed on the tooth enamel, mainly on the labial surfaces of the maxillary anterior teeth. Choumps has extremely low incidence and could be used as an identification trait. This unique practice of getting the teeth restored or engraved with gold is prevalent

among certain tribes of western Uttar Pradesh and Rajasthan of India, specially the Gujjar Tribes, Jaduvanshi Thakurs and Jaat Tribes. Knowledge of these practices is important for the valuable insights they provide into the cultural beliefs and traditions of the people who practise them.^{1,3,4}

Case Report

A 42 years old female reported to the outpatient department of Oral medicine and radiology for dental checkup in Dental College at National Capital Region Bahadurgarh. On clinical intra-oral examination two gold colored enamel tattoos on the central incisors were found [Fig. 1]. On history taking it was found that patient had got the gold tattooing done by a local tooth tattoo maker called Ferua, at her village. She got the enamel tattooing done when she was 15 years old and reported that markings were done on her teeth by Ferua and he had drilled holes with a manual drilling tool in her front teeth and then placed the gold tattoo with the gold wire by hammering it on to the tooth surface and later polished it with stone. She stated that her mother and sisters also had similar tooth tattooing. Reasons given by patient for these tattoos included that it was a fashion in their village for such tattoos and some were of the belief that this will be the only gold they will carry with them after their death to their heavenly abode and some said they were used for identification in a given nomadic clan. A detailed history revealed that the patient belonged to the Gujjar tribe and he is a resident of Kosi kalan, Uttar Pradesh, India. Thus, a provisional diagnosis of gold enamel Choump was made as this was a tradition followed in this part of the country.

On intra-oral periapical radiographic examination, round well defined radio-opacities were found in

enamel and superficial dentin of incisal third of both central incisors. There was no evidence of any periapical pathology on the intraoral periapical radiographic examination. On electrical pulp testing, the teeth responded within the normal range and thus was found vital.



Fig. 1: Gold enamel choumps in central incisors



Fig. 2: Armamentarium for Gold enamel choumps

Discussion

Choumps are a rare type of tooth tattooing in which gold is placed on the tooth enamel, mainly on the labial surfaces of the maxillary anterior teeth. This practice has no sex predilection is mainly carried out after the eruption of maxillary permanent incisors. Various patterns of enamel choumps among different tribes are discussed in literature. More than one pattern is also seen in one tribe.^{2,5} The commonly seen patterns are single gold spot tattoos, double gold spot tattoos, triple gold spot tattoos, six gold spot tattoos on each of the upper central incisors. Apart from these other patterns like triple gold spot tattoos on each of the upper central incisors and single gold spot tattoos on each of the upper lateral incisors, triple gold spot tattoos on each of the upper central incisors and single gold spot tattoo on left lateral incisor, and triple colored spot tattoos on each of the upper central incisors and single colored spot tattoos on each of upper lateral incisors are also seen.^{2,5}

Procedure

These tattoos are made by a local tattoo maker known as a Ferua. Feruas usually visit from village to village during festivities or villagers visiting the local fares (Melas) get them done. The armamentarium commonly used in doing enamel choumps are known by local names as plas or a plier, burma or a hand driven drill, cutter, hammer or hathoda, chimti or forceps, drilling burs or ghurni, gold wire and polishing stone [Fig. 2]. The tattoo seeker is made to sit on the ground and the Ferua made markings by drilling bur on the teeth where gold wire is later placed. After this a hand drill is rotated to create tiny holes of approximately 0.5mm at the site of interest. The gold wire is then placed against the already drilled holes. After cutting the excess wire, the rest of the wire is hammered against the tooth surface to ensure proper adaptation and finally polished by polishing stone to get a final tattoo- gold enamel choumps.^{2,5}

Myths about choumps

There are numerous myths and beliefs by different members of a single society or tribe for this single type of mutilation like according to the great Indian epic, The Mahabharata, Danveer karan donated his gold tooth to Lord Krishna who latter blessed him. So devotee of Lord Krishna, follow this tradition of gold Choumps, in the hope that they will also be blessed secondly according to Hindu mythology one should carry gold in form of choump as one among five Tatvas in his/her mouth after death. Some tribes relates gold as a symbol of truth, honesty, purity of speech and mind and thus get gold engraved in their tooth. In olden times, members of a particular tribe were recognized on the basis of the specific patterns of the Choumps. Finally younger generations who are not aware of these myths, get this type of tattooing as a kind of fashion and beautification.^{2,4,5}

Nowadays not only the hard tissues, but the peri-oral and oral soft tissue, may also be involved in mutilatory practices which can range from black staining, dyeing using barks, tattooing of lips and gingiva, piercing of lips, tongue, eyebrows and other soft tissues and insertion of materials such as wood, ivory or metal, uvelectomy and facial scarring. Mutilatory practices involving teeth and oral soft tissues have been known by pre-historic times and many of these practices are still being followed, but adequate data regarding each is lacking.²

Conclusion

The practice of enamel Choumps, is unique in itself because of its geographical distribution and the nomadic clan following this traditional practice. Hence it is appropriate and beneficial to include enamel choumps in ante-mortem records and to reproduce proper radiographic and photographic records of this

tooth art, which help to secure the cultural heritage and ease the role of the forensic specialist.

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