

Fixed-removable partial denture - A case report

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ABSTRACT

One of the most common stigmas prevalent in dental practice is quackery. This targets the practice from both the ends: The service provider and patient population. This article reports a case where such a practice permanently damaged the patient's teeth finally making the patient completely edentulous at an early age and also discusses the various hazards caused by quackery in dentistry.

Key words: *Dentistry, Fixed partial denture quackery, Removable partial denture*

The stigma of dental quacks in dental practice is prevalent in India since many decades not only in rural areas but also the urban crowd. The poor people who cannot afford for speciality dental treatment prefer to go to unregistered cheap dental practitioners. Before the 20th century, dentistry was largely unregulated. In Europe, during the middle age, it was often practised by monks, barbers, and blacksmiths. This article reviews factors contributing to the existence of quackery and the outcome of this affecting the profession.

CASE REPORT

A 45-year-old male patient visited to the Department of Oral and Maxillofacial Surgery, Vananchal Dental College and Hospital, Garhwa, Jharkhand, with a chief complaint of mobile teeth in the both upper and lower arch since few days (Fig. 1). The patient gave a history of getting his missing teeth replaced at a street dental quack around 3 years ago. On examination, he had a removable partial denture that was fixed to the adjacent teeth with the help of cold cure acrylic (Figs. 2 and 3). Clinically, it was difficult to distinguish the acrylic teeth with the original due to the presence of acrylic till the middle-third of the crown. As shown in Fig. 1, the acrylic had damaged the supporting structures of the teeth including the gingiva, periodontium, and alveolar bone.

After blood investigations, extractions of the teeth with compromised periodontal support were planned. After giving local anesthesia, the fixed-removable denture along with adjacent damaged teeth was extracted in both the upper and lower arches (Figs. 4 and 5). Saline and betadine 5% w/v were used to irrigate the surgical site for flushing out the debris. There was a massive gingival enlargement at the site of the extraction. Continuous interlocking sutures were placed with black braided silk in both the upper and lower arches after the procedure. Fig. 6 shows the removable denture that was fixed to the adjacent teeth with acrylic in the maxillary arch, after extraction. The patient was

recalled after a week for suture removal. Gingival enlargement had appreciably regressed by them. The patient was followed up after a month and referred to the Department of Prosthodontia for fabricating a complete denture.



Figure 1: Upper and lower removable partial denture fixed to adjacent teeth with acrylic



Figure 2: Upper and lower removable partial denture fixed to adjacent teeth



Figure 3: Lower removable partial denture fixed to adjacent teeth with acrylic

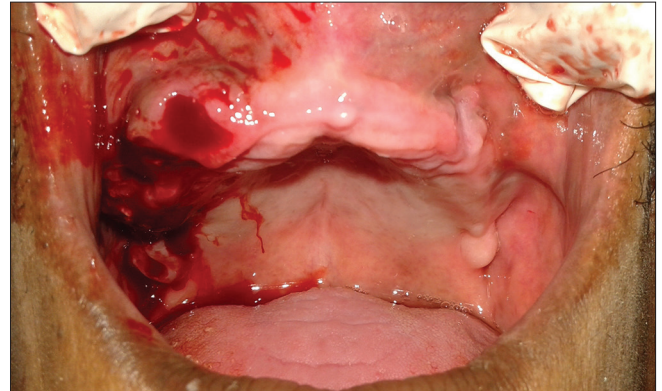


Figure 5: Post extraction surgical site of the upper arch

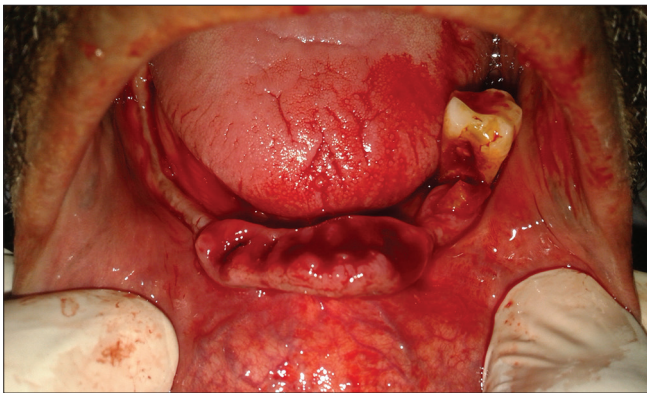


Figure 4: Post extraction surgical site showing gingival enlargement in the lower arch



Figure 6: Extraction of upper teeth along with removal of the fixed denture

The patient had to undergo full mouth extraction at the age of 45 years making him completely edentulous. Complications associated with this case could be the development of dysplastic changes in the adjacent soft tissue due to persistent contact with polymethylmethacrylate in the cold cure plate of the removable partial denture.

DISCUSSION

Quackery in dentistry can be synonymously called many terms such as “unconventional dentistry,” “holistic dentistry,” or “biologic dentistry” [1]. At present, India has one qualified dental professional for around 10,000 persons in urban areas and for about 2.5 lakh persons in rural areas [2]. Various factors contributing to the prevalence of quackery in dentistry include increase in competition, higher costs for education, and for opening a practice, diminished dental education in the methods of science, failure of organized dentistry to develop guidelines, and policies for combating quackery [3]. Unconventional dentistry practised on the streets ranges from the extraction of teeth with or without local anesthesia without the proper protocol for sterilization being followed to the use of self-cure acrylic to fix partial dentures over the soft tissue. Acrylic plates are suspended with stainless steel wire to support denture avoiding the discomfort of maintaining removable partial denture [4]. One of the many procedures done by quacks is the use of self-cure acrylic as a restorative material in cavities. Padmini Sivaraiah

in a article for the Times of India published December 19, 2012 writes dental quacks are playing havoc with oral hygiene in rural population of Tamil Nadu Southern Districts against which plan to file a petition against such practice in the state government for appropriate action [5].

Practices followed by non-qualified dental professionals attribute to the major health hazards pertaining to oral and maxillofacial tissues [6,7,8]. Fixation of the removable partial dentures to teeth with the help of stainless steel wires compromises the periodontal status of the adjacent teeth. The polymethylmethacrylate in the self-cure acrylic plate carries high carcinogenic potential when in contact with soft tissues for over a long period of time. Tewari et al. in a case report of dental quackery reported single-cone obturation and radiopaque wire-like structure found extending from maxillary left central to lateral incisor leading to periapical pathology post-treatment, needing surgical endodontic therapy [9]. Untrained placement of suction device causes erosion of the palatal mucosa. How do they know what to do? These quacks observe the professional working in the dental clinic as they work as assistants under them [10,11]. They are able to acquire a meager knowledge by simple observation of the dental procedures without scientific know-how and then start off their own practice in the rural areas at a low cost without using any technology and modalities. Sterilization of

the instruments being used and the technical application of those instruments intraorally is of least concern to them.

Dental practice ethically followed should meet standards that the quackery and fraud fail to meet. (1) Informed consent acquired, wherein the patient makes choice among the alternatives that are explained impartially in the patient own language, (2) the net expected benefit to patients must outweigh the anticipated risks, (3) healthy competition among the practitioners to produce results that meet the standard of care and the expectations created by dentists, (4) professional integrity that maintains the trust between the patients and society placed in profession, and (5) a qualified professional should be able to give reasons for their actions that are acceptable to their peers.

Since quack dentistry damages both the patient's trust and dentist's reputation, specific actions need to be taken by the dental professionals. It ought to be the responsibility of the qualified dentist to encourage a broad understanding of risk of such practice along with the promotion of quality care and create awareness of benefits of good oral care. According to the Board of Regents of the American College of Dentists, practitioners should combine scientific evidence with outcome data from their own practice to form an accurate estimate of risk their patients are exposed to such harmful practices [12].

CONCLUSION

Quackery as a stigma in dentistry is hollowing the quality of the service provided by the professionals to the patient. This needs to be addressed to the soonest possible to avoid further decline in the

professionalism. This article thus aims to create awareness and the need to identify and overcome dental quackery.

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