

Suction Cup Induced Palatal Perforation: Havoc of Dental Quacks

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Abstract

There's an old saying, "A robber demands your money or your life, but a quack demands your money and your life!" Quackery is a community-wide public health problem that should be precise and clearly defined. Health professionals have a duty to take action when the public is being abused in an area due to unethical practices performed by a quack. The failure to take collective and co-ordinated actions against quackery sends an unprofessional message. Quackery should be penalized under the law. As with any other public health problem, an epidemiologic strategy is needed to develop information on casual agents and aspects that favor or discourage the proliferation of quackery. This case reports one such case caused due to the menace of a dental quack.

Keywords: Dental quack, suction cup, Palatal perforation, havoc.

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INTRODUCTION

A technique itself is simply the sensible application of principles, and if the principles are unsound, the foremost elaborate and painstaking technique certainly is doomed to failure" [1]. In this era when digital dentistry, nano-dentistry, computer-aided design-computer-aided manufacturing, lasers, rotary endodontics, and zygomatic implants have stepped into, there are people who still visit an unqualified practitioner/quack for their illness. The wearing of faulty complete denture may have adverse effects on the health of both oral and denture supporting tissues hence they should be fabricated by trained dental professionals to minimize the ill effects of the prosthesis in the oral tissues.

"Denture retention will be a subject perplexing and perpetual until it troubles find their logical solution in understanding its physics" (Hall 1918) [2]. Due to lack of knowledge, most of the prosthesis fabricated by these quacks are under-extended with little retention and stability. The suction cup is most commonly used by these quacks to increase the retention of the maxillary denture. This device is not advised according to academic recommendations because the continuous

negative pressure from the vacuum effect of the suction cup resorbs the underlying bone and atrophies the mucosa beneath the suction cup. Such a case is reported in the article which describes the palatal perforation induced by a suction cup in less than a year.

CASE REPORT

A 55-year-old male, labourer by profession, hailing from Ujjain district, reported to our dental outpatient department with a chief complaint of the entrance of fluid into the nose. Examination revealed that the patient was wearing a single complete denture in the maxillary arch. On general physical examination, the patient was moderately built and well oriented to the time, place, person, and all vitals were within the normal limits with no notable medical issues.

Detailed case history revealed that the patients had been edentulous for 1.5 years. He narrated that the denture was placed 1 year back in his hometown by a practitioner who claimed to be a dentist. On examination, an acrylic single complete denture was fixed to the maxillary arch. On the tissue surface, the suction cup was fitted in the centre of the denture which provided retention (Fig 1). Personal history revealed

that he did not remove the denture during the night and cleans it rarely.



Fig 1: Figure showing palatal perforation



Fig 2: Maxillary denture with suction cup

Intra-oral examination revealed a completely edentulous maxillary arch. An erythematous depression circular in shape having concentric rings which measured approximately 5mm in greatest diameter was seen over the centre of the hard palate. This was correlating with the impression of a suction cup embedded on the denture surface. A semilunar shaped palatal fistula 2.5mm was noticed on the periphery of the circular depression (Fig 2). It was non-tender on palpation. On thorough examination, when the patient was asked to swallow he complained of water entering into the nose and while speaking, air leakage and nasal twang were present. Based on the history and clinical examination, a provisional diagnosis of suction cup induced palatal perforation was made.



Fig 3: Obturator Placement

The patient was advised to discontinue the use of the old denture and maintain oral hygiene. To prevent the present problem of nasal regurgitation a palatal obturator (Fig 3) was fabricated and the patient was referred to the Department of oral and maxillofacial surgery for further needful procedures. Final mucosa-borne maxillary prosthesis was planned after healing of the defect along with the closure of the perforation.

DISCUSSION

Palatal perforation can occur due to numerous causes like congenital, trauma, and pathological reasons. Continuous pressure from a suction cup put into the tissue surface of the top denture by a dental quack is an uncommon cause of palatal perforation. Small suction cups made of soft rubber are fastened to the palatal surface of the maxillary denture with a metal ring in these discs. These suction discs provide needed retention by inducing negative pressure on the tissue surface. This negative pressure induces a harmful effect on tissues of the contact area by reducing blood circulation, which produces a hypoxic state in the affected area and necrosis of tissue thus leading to tissue perforation [3]. The case presented above is just one among the many which may have been taking place all over the country. It calls for desperate measures to be taken to prevent the risk of public health. But in order to address the problem of growing quackery, we need to identify the reasons which are causing it.

India is the world's second most populous country. The current population of India is 1.38 billion as of, July 2021, supported Worldometer elaboration of the most recent United Nations data. Of the total country's population, 30 % of the population is urban and more than 70% of the Indian population resides in rural areas with a major portion being below poverty line [4]. According to the WHO, the ideal Dentist-population ratio is 7500. In 2004, the Dentist-population ratio in India was 1:30000. According to the

World Health Organization's 2014 World Health Statistics, the ratio was 1:10000. In the year 2004, India had one dentist per 10000 people in urban areas and one dentist per 1.5 lakh people in rural areas [5]. These are the most reasons that make an individual in rural areas go to the quacks more often for his or her treatment needs.

Random House Dictionary describes a quack as a “fraudulent or ignorant claimant of medical skill or a private who pretends professionally or publically to possess skill, knowledge or qualifications he or she does not possess.” a charlatan. In many developing countries of the world including our own, where dental health care facilities are limited and treatment is expensive, the underprivileged of the society go to quacks to get their dental treatment done [6]. Only 15-20% of people in India are able to get dental services through national schemes, and 80-85% are still investing money from their pockets, on quacks. According to one of the published reports by India Today, in January 2019, about 2,500- 3,000 quacks are practicing illegal dentistry in the capital of India alone [7]. In India, the number of so-called street dentists has increased dramatically, especially in rural regions, where they are wreaking havoc with their illegal profession. Parts of Uttar Pradesh, Bihar, Haryana, and Tamil Nadu are few states notorious for street dentistry. The reasons for growing quackery are often attributed to a shortage of trained practitioners, expensive treatment plans provided by licensed dentists, absence of primary health care approach in dentistry, the poor dentist-patient ratio in rural population, and lack of awareness [8]. According to a cross-sectional study done to explore the reasons to visit a quack for prosthodontic solutions in 2019, the data revealed that the most common reason to go to the quack was lack of awareness. 74.2% of the participants were not even aware of any qualified practitioner [9].

The common dental quackery practices in India includes acrylic dentures fixed on to the mucosa with commercial glues, extracted tooth is usually trimmed and glued back to the socket with self-cure acrylic, wires incompatible with the oral cavity are used to stabilize dentures, fixed orthodontic treatments by non-licensed practitioners, transfusion without screening of blood, unsterilized syringes lead to spread of hepatitis B, HIV. These unwarranted procedures can lead to bone loss, adjacent tooth loss, infections, and septicemia. Oral cancer, space infections, and even death due to widespread infections are some serious risks that come from surgeries performed by these inexperienced unethical personnel. According to an IMA (Indian Medical Association) survey, the number of quacks in our country outnumbers the number of doctors. Even if one quack causes the death of one patient in one year due to wrong diagnosis and

treatment, nearly 2.5 million silent murders take place across the country [8].

The imbalance between the rural and urban dentists can be improved by increasing job opportunities in rural areas, thereby the rural areas will attract dental graduates, and thus the concentration of dental graduates in the urban areas will diverge to underserved areas. The Indian government is supporting the establishment of dental practices in rural areas by giving subsidies, which is a pressing need. At addition, the Indian government should consider creating additional positions for dental graduates in government hospitals and Primary Health Centers. Oral health programmes should include dental health education in order to raise oral health awareness, particularly among rural populations. The insufficiency of primary care services for oral health is also addressed in the Planning Commission of India's Universal Health Coverage report, which may have an impact on India's goal of universal health coverage [5]. Anuj Jain in this paper has given a tetrad to tackle dental quackery. If suitable judgments are not made on time, the credibility of the dental profession will suffer, and the country's highly qualified dental staff would be wasted [7].

CONCLUSION

Dental quackery exists for decades and it is going to be a major challenge since it risks the life of an individual. Reports suggest that there are about quite a million unqualified or 'quacks' in India who have long been blamed for misdiagnosing and mistreating. Government organisations, dental councils, and dental professionals have a major obligation to accept this as a challenge and prohibit quack practices. Visits to dental quacks were highly influenced by age and level of education, and these are the two key factors determining such visits. Quack practices in the dental field should be eliminated from their roots, to provide good oral treatment and education to the population who are in real need of it.

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