Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies ***NLM ID:*** *101716117*

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr Indian Citation Index (ICI) Index Copernicus value = 91.86

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Case Report

Radiographic features of child neglect, elder neglect that mounts to oral neglect

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ABSTRACT:
Maltreatment by human to another human have been evident through the practice of apartheid, slavery, black lives matter and many more gender based. Child neglect (CN) and elder abuse and neglect (EAN) has recently received global attention due to the economic health burden that is associated with negative health outcomes related to these problems. Between CN and EAN, a person can develop habits that amount to self - neglect. The role of dentist in identifying both forms of neglect has been stressed from time to time. We present a series of four cases in the form of radiographic evidence which highlights the relation of EAN and CN to self - neglect. The first case presents a scenario where parental neglect during childhood extended to self - neglect in adulthood. The second case presents a case of elder neglect that lead to self - neglect. The third case is that of CN which did not extend to self - neglect and final case presents a scenario where non parental neglect could even lead to self - neglect.

Keywords: maltreatment, psychotherapeutic, caries index, obesity, elder abuse, parental neglect

Received: 22 February, 2022 Accepted: 28 March, 2022

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This article may be cited as: Ganju N, Kulkarni S, Malhotra R, Yadav AL, Samad KK. Radiographic features of child neglect, elder neglect that mounts to oral neglect. J Adv Med Dent Scie Res 2022;10(4):77-81.

INTRODUCTION

One of the reasons why man has been termed as a social animal, is because it actually finds its greatest strength in other humans. This actually relates to law of dominance and recession. Throughout human history, men dominate women, parents dominate child, brother dominates sister, rulers dominate slaves. With humans gaining more education and civilized behaviour, the issue of dominance became more open and after the hue and cry the mechanism of domination has changed rather than being eliminated. In roman literature, old age has been described with derision and loathing. [1,2] Modern reports of similar behaviour were first reported in 1975, with the publication of granny battering in medical journals. [3] In the current scenario the two above events are related to elder abuse and neglect in humans (EAN). There is a difference between a care and dominance. This is revealed by the situation of child maltreatment or child neglect. On one side, it is compulsory for parent to dominate over his child for the benefit of the child, yet when one fails to do so or provide what the child wants, it will be termed as child neglect CN. Psychologically, the mechanism behind EAN and CN is somewhat similar and both are disorders of behaviour. [4] EAN has been considered as a future challenge in geriatric care, since the global population over 60-year age group is expected to rise by 10 to 12 percent by the year 2020. [5] CN on the other hand occurs at a young age and therefore the repercussions on the child become more apparent in adulthood with adverse health outcomes like cardiovascular disease, [6] overweight/obesity, [7] arthritis and mental disorders. [8] Children are sensitive to their environment, especially to their parents, and it has been found that negative health outcomes are likely to result even if the child is not a part of abuse or violence. [9,10] Childhood habits progress to adulthood, and childhood habits are mainly developed within a family environment. [11]

Oral health constitutes multiple dimensions that range from consumption of healthy food to

maintaining and developing oral hygiene habits. Parents are responsible for teaching children what is appropriate for eating and how to manage hygiene after consuming cariogenic sweets. Overall, it is the responsibility of the parents to develop healthful behaviours in their children. [12] Different mechanisms have been reported that influences healthful behaviours and these include family meals, food available at home, encouraging dieting, avoiding high calories and highly cariogenic food. [13,14] Among all environmental influences, the major influence in preventing and the cause of non-communicable disease like obesity is the parental neglect. [15] Estimates of mean annual health expenditure have shot up by 150 % in developed nations in the last five years to manage conditions like overweight and obesity resulting due to parental neglect. [16] EAN has a different mechanism altogether for neglecting one's own health. An elderly is a grown up adult who has passed and fulfilled his duties towards his family. Yet there are circumstances when the same family members neglect, ignore his needs and desires. Elder abuse has many forms among which the psychological abuse in the form of neglect is most common. [17] The elderly person may have an enforced helplessness, dependence, fear and financial loss by his abuser or perpetrators. [18,19] Such victims have been associated with a very high risk of developing severe anxiety, depression and even mortality. [20,21]

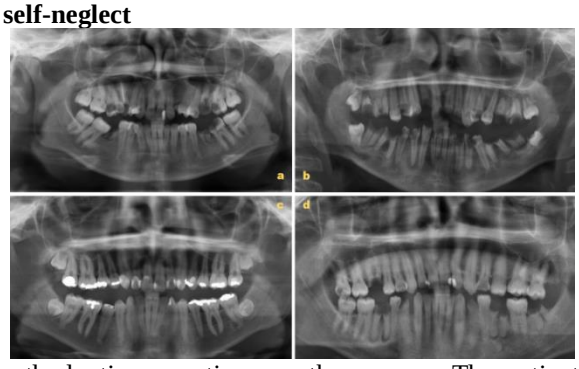
Both types of human neglect can be diagnosed in routine clinical practice and dentists have been implicated in both forms to play a very important role in prevention, intervention and management. Cases of EAN can be identified when they seek Prosthodontic care and CN can be determined when parents seek pedodontic care for their respective children. Surprisingly, the number of EAN cases in a Prosthodontic outpatient department has been found to be in the range of 35 to 40% which is higher. [22] This case series in the form of multiple case reports is therefore aimed to analyse the link between each type of neglect and respective oral condition. The study has been planned to discuss only radiologic interpretation of oral neglect which is an objective evidence and therefore substantiated.

CASE SERIES

CASE NO 1: PARENTAL NEGLECT EXTENDING TO SELF-NEGLECT (FIG 1 A)

An adult male patient aged 32 years reported with a chief complaint of impaired esthetics due to rotated teeth in upper and lower arches. The patient was a businessman by profession, married and had two kids. The patient did not report any evidence of a medical or systemic disorder. Dental history revealed that the patient was not regularly maintaining oral hygiene, did not use regular oral hygiene maintenance aids, including tooth brush and tooth paste and occasionally used to clean teeth with tree bark wood (miswak). Extra oral parameters were normal. Intra oral presented a high DMF (decayed, missing and filled) index along with high oral hygiene index. Patients maxillary posterior teeth were rotated, inclined due to loss of adjacent contacts (Fig 1 a). Maxillary arch also had a retained deciduous right canine and a missing lateral incisor on the right side due to which the maxillary canine had erupted in place of the lateral incisor. Out of a total of 13 carious teeth one had a temporary filling and one was endodontically treated 2 years back without having a crown fabricated over it. Most of the caries were proximal in the maxillary arch. Mandibular first molars were both grossly destroyed with root stumps present. The patient was asked about his inability to maintain oral hygiene and seek care. The patient was highly indifferent to dental treatment. The treatment plan that was presented to him included a multidisciplinary treatment, including extraction, oral hygiene maintenance, orthodontic correction, restorative and endodontic treatment and finally Prosthodontic tooth replacements using either an implant or adjacent teeth. The patient did not want to undergo a comprehensive treatment plan and wanted correction of only anterior tilted teeth through

Figure 1: (a) Orthopantomograph (OPG) showing high incidence of occlusal and proximal caries (case 1) (b) OPG representing the case no 2 showing excessive damage to coronal part of natural teeth (c) OPG representing case no 3 showing silver amalgam restoration replacing old composite resin restorations (d) OPG of case no 4 showing oral condition of a person suffering from self-neglect



orthodontic correction or other means. The patient proposal was rejected by the multidisciplinary team, citing such treatment not ethical nor possible.

CASE NO 2: ELDER NEGLECT EXTENDING TO SELF-NEGLECT (FIG 1 B)

An adult female patient aged 44 years reported with a chief complaint of difficulty in eating due to grossly decayed posterior teeth. Patients personal history revealed that she was a housewife and had 3 children with elder sons being married. The patient reported that she was neglected by her spouse and family members due to which her oral condition has become so bad. She also reported that she was careless about seeking treatment and whenever she developed problems she would either take the medicine on her

own or get it from a medical shop. Extra oral features did not show any abnormal parameter. Intra oral examination revealed a very high caries and periodontal index. Maxillary anteriors were grossly decayed **(Fig 1 b)** excluding left canine. Mandibular anteriors were also grossly decayed. On average almost all posterior teeth were grossly affected by dental caries. Root stumps were present in relation to all first and second molars. Mandibular right first molar had even a furcation involvement. Most of mandibular posterior teeth had peri apical involvement. The patient reported that here teeth were alright and normal about seven years back. She related her poor oral condition to the timing of her second son's marriage. Treatment advised for the patient was a full mouth rehabilitation procedure that included many teeth to extract, others endodontically treated, followed by single crown, fixed partial denture and a removable partial denture.

CASE NO 3: PARENTAL NEGLECT NOT EXTENDING TO SELF-NEGLECT (FIG 1 C)

A female patient aged 27 years reported with chief complaint of bad odour from her oral cavity. The patient was married, had 2 kids and was a housewife by profession. Dental history revealed that she was never motivated by parents to maintain oral hygiene and would never use a brush to clean her teeth till the age of 16 years. After that, she started using brush and paste regularly. No significant relation was established about her existing condition to her systemic health status. Extra oral examination was within normal limits. Intra oral examination revealed a high caries index with almost 20 teeth have a filling in them including anteriors. Maxillary anteriors had a class 5 lesion that was filled with a composite. Maxillary and mandibular posteriors had occlusal cavities filled with a composite. Treatment plan presented to the patient included removal of all composite restorations in the posterior teeth followed by restoration of same by amalgam fillings. The patient consented to the treatment and all posterior restorations were removed, followed by refilling's with silver amalgam **(Fig 1 c).** Anterior restorations were redone with either glass ionomer cement or composite resin.

CASE NOT 4: NON-PARENTAL NEGLECT, BUT EXTENDING TO SELF-NEGLECT

A male patient aged 28 years old reported with chief complaint of decayed teeth, bad odour and sensitivity upon eating sweets and cold. Medical history was non-contributory. Dental history disclosed patient had a habit of cleaning teeth regularly in childhood, no history of seeking dental treatment except on one occasion when anterior teeth had a problem. Extra oral examination was within normal limits. Intra oral examination revealed a high caries and periodontal index. First molars were all grossly decayed except for the left maxillary arch. Maxillary premolars, mandibular premolars were involved by decay and decalcification (**(Fig 1 d),** while the mandibular left second molar was also grossly decayed leaving root stumps. When asked about the poor condition of posterior teeth, the patient seemed to be concerned about the anterior teeth only since they controlled his facial esthetics. Intra oral dental status was a clear sign of self-neglect.

DISCUSSION

A series of radiographic presentation that highlights four different hypotheses related to EAN and CN, observed in a dental setting. The series provides a link between the two through the phenomena of self-neglect. The cases describe how parental neglect can lead to self-neglect of the oral cavity by not practicing oral hygiene measures required to preserve the natural dentition. In all the cases, the onus is on the adult who has led him to loose natural tooth structure and face the consequences. Human maltreatment is not new and dates back since society took form. While child punishment has been justified in certain cases, excess of such punishment can take many forms. Child maltreatment like child neglect and sexual abuse have shown associated with increased risk of developing unhealthy behaviours. [23,24] Three forms of parental neglect can be related to high caries index in an adult which are supervisory neglect, care neglect and medical neglect. [25] In the first case, it is evident that the patient was only concerned with the anterior teeth and not the posterior teeth, which have more important functions for maintaining ones general health in terms of nutrition. Such cases require a high level of patient education and motivation in order to restore normal oral health and maintain healthy tissues. Complex restorative procedures are required to restore normal oral functions. No restorative material can last for decades in the oral cavity. The choice of using a restorative material with long shelf life depends largely on the level of patient education and motivation. [26] CN can lead to self-neglect which has been described even in extreme form (Diogenes syndrome). [27] A person suffering from self-neglect tends to withdraw socially and surrenders from social competition and the worst being he refuses to accept help. Self-neglect can occur at any age of adulthood and is most commonly found in elderly people above 65 years of age (80%). [28,29] Elder neglect can lead to self-neglect which has been highlighted in the second case of this series. The patient despite being in middle age had lost more than 70% of coronal tooth structure to caries. Since anterior guidance was lost, the only way of rehabilitating such patients was through a full mouth rehabilitation procedure. [30,31] EN has been a sensitive issue in the society which has been ignored for decades. It is more common than one can assume, but remains concealed by both victim and perpetrator for fear of social backlash. The negative effects of EN has been found to yield

negative treatment compliance in complete denture wearers, [32] but it is also true that psychological interventions in the form of patient and family caregiver education has yielded positive results in such cases. There are however few studies that show any intervention in CN cases. The role of a dentist through these cases goes beyond the restoration of lost tooth structure and therefore should be considered whenever such extreme cases of high caries index is found in patients. Underlying influences should be investigated at length and depending upon the cause one should look out for solution both inside and outside the realm of dentistry.

CONCLUSION

Dentists are in a better position to identify cases of parental and elder neglect. This has been substantiated and various health organizations have laid their onus on dentists to intervene wherever necessary. Dentists although have been reluctant citing lack of training to identify such cases. As part of our commitment to patients we must develop the skills to identify such malice in our society and among our patients

ACKNOWLEDGEMENTS

Heartfelt thanks to the staff of the department of psychology and psychiatry for guiding the contents of this study.

CONFLICT OF INTEREST

None

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