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Role of Paediatric Dentist in Non-Invasive Management of Obstructive Sleep Apnoea in Children

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ABSTRACT

BACKGROUND

Obstructive sleep apnoea (OSA) is a chronic disorder in which repetitive episodes of cessation of breathing occurs during sleep due to collapse of upper airway leading to recurrent awakening, sleep fragmentation, and perturbation in ventilatory function. The disorder is much more common than realised and the manifestations in children are different from those in adults. OSAS may present in different ways like cognitive dysfunction, excessive day time somnolence, decreased attention span, drooling of saliva, mood disorders like depression or irritability as well as adverse cardiovascular sequelae like hypertension, heart failure. Polysomnography or overnight sleep studies remain the gold standard for the diagnosis of paediatric obstructive sleep apnoea (POSA) disorder. Therapeutic approaches for POSA include surgical and nonsurgical means. The choice of therapy depends on various factors like aetiology, severity of the POSA and patient's choice. Although continuous positive airway pressure (CPAP) remains the first line therapy in adults, the introduction of oral appliances provided an attractive alternative and made the role of dentists more prominent in management of this disorder. OSA is often under-diagnosed due to lack of awareness. So, it is essential for dentists to be aware of the various aspects of this disorder as well as its management.

KEY WORDS

OSA, Paediatric Dentist, Oral Appliances, Non-Invasive Management

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Aerodontalgia among Airline Pilots of India: A Cross-sectional Survey

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ABSTRACT

Introduction: Barometric pressure-induced dental pain is a clinical entity elicited by atmospheric changes in pressure. Barodontalgia among pilots is of marked interest as it can be a potential flight safety hazard and compromise the personnel's operational capability and performance. Due to its overlapping signs and symptoms, it may also remain unnoticed and represent itself during a pressure change which may be during ascend or descend of flight.

Aim: To assess presence of barodontalgia and awareness of the phenomenon among commercial pilots based in India.

Materials and Methods: This cross-sectional study was conducted from June to August 2020 using self-reported questionnaire submitted via Google forms (Alphabet, Mountain view, CA, USA) among 410 pilots based in India. It consisted of questions inquiring

about the occurrence, localisation, intensity and recurrence of in-flight dental pain. Inferential statistics were performed using Chi-square test, One way analysis of variance (ANOVA) and Independent t-test. The level of statistical significance was set at 0.05.

Results: Three hundred and seventy pilots responded to the questionnaire with a response rate of 90.24%. The incidence was reported among 10.54% (n=39) pilots although 42.7% (n=158) lacked awareness regarding the same. Only a single case of recurrence of pain was reported while none reported any risk to flight safety or accident, secondary to barodontalgia.

Conclusion: The incidence level of barodontalgia among commercial pilots in India is low. However, the lack of awareness is still an unsettling risk and was not found to be of significant difference when compared on the basis of gender and work experience.

Keywords: Aerospace medicine, Atmospheric pressure, Aviation dentistry, Pain

CORRIGENDUM

The abstract entitled '1714 | Mandibular Fractures in Pediatric Patients: A Review of Literature' by Cyriac et al¹ was published with incorrect content. The correct version is presented below:

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Background: Trauma is the leading health problem among children and the major cause of infant mortality. Children are more susceptible to craniofacial trauma due to their greater cranial mass-to-body ratio. Social, cultural, and environmental factors influence the occurrence of maxillofacial trauma.

Literature Review: The incidence, prevalence, and pattern of mandibular fracture vary among different study populations. There is variability in the pattern of mandibular fracture resulting from different causes of injury such as falls, road traffic accidents, and assaults. In children and young adults, there is an increase in the proportion sustaining these injuries. Treatment of paediatric mandible fractures during the primary and mixed dentitions has remained a topic of debate. The general management principles for treating mandibular fractures are like those for adults but differ because of the mixed dentition. Although in adults, absolute reduction in and fixation of fractures are indicated, in children, minimal manipulation of the facial skeleton is mandated. In the literature, discussing the effects of fractures on mandibular growth, a dichotomy exists between reports of nearly perfect healing of conservatively managed displaced condylar fractures and reports of severe growth disturbances or ankylosis. Some of this discrepancy may be explained by differences in the types of injuries sustained at various stages of development.

Conclusion: Mandibular fractures are the most common facial fracture reported in hospitalized paediatric trauma patients. They are often associated with other craniofacial, cervical, and systemic trauma.

REFERENCE

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RESEARCH ARTICLE

Oral complications of emerging Type 2 Diabetes Mellitus of young - A challenge for pediatric dentistry

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Key words:-

Diabetes mellitus, childhood obesity,
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Abstract

India is being referred to as "The Global Capital of Diabetes Mellitus" with increasing burden of Type 2 Diabetes Mellitus in Asian Indians. The susceptibility of pubertal and pre-pubertal Asian Indians to develop diabetes is increasing as they are being subjected to urbanization, nutritional transition and an obesogenic environment. The pathway of oral disease and diabetes mellitus of children can be linked. Pediatric dentists with their adequate knowledge and experience can help intervene at early stages in undiagnosed patients and also help in improving the quality of life of diabetic children and adolescents. This review aims to illustrate the manifestations that can develop in children and adolescents with Type 2 Diabetes Mellitus. It also demonstrates a potential relationship between obesity, Type 2 Diabetes Mellitus and its oral complications. Thus, a team of health care workers is required to work in harmony with each other to help reduce co-morbidities of the diabetic child.

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RESEARCH ARTICLE

DIET THERAPY FOR REFRACTORY EPILEPSY AND ITS RELATIVITY TO DENTISTRY

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Abstract

Intractable epilepsy are basically seizures which cannot be controlled with AED one year after onset, even with accurate diagnosis and monitoring of treatment. Intractable epilepsy is linked with an elevated risk of mortality, unemployment and impairment of cognition. Diet therapy measures are in use for the treatment of refractory epilepsy since prehistoric periods. Over the last decade, alternative treatment options, such as diet therapy has gained popularity. Ketogenic diet (KD) is an effective, non-pharmacological treatment for drug resistant epilepsy and difficult to treat epilepsy syndromes of infancy and early epileptic encephalopathies. The diet is deficient in vitamins and minerals and a number of complications have evolved in the form of case reports which mostly reveals oral and systemic complications attributing to a certain deficiency state.

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Introduction:-

The word "Epilepsy" is derived from Latin and Greek words for "seizure" or "to seize upon".¹ A seizure can be defined as an alteration of the neurologic function resulting due to an excessive discharge of the neurons in the brain.² Epilepsy is a disease of the brain and is one of the most common chronic neurological illness.³ It involves generation of seizures which is associated with a change in behaviour, ability to perceive things, mental activities. It also involves temporary loss of consciousness, and muscular contractions.⁴

"Epilepsy Syndrome" are a cluster of clinical symptoms that occur together in relation with similar seizure(s), age of onset, Electroencephalography (EEG) findings, triggering factors, genetics, natural history, prognosis and response to Antiepileptic drugs (AEDs).⁵

Epilepsy is diagnosed mainly on clinical grounds. According to the International League Against Epilepsy (ILAE), 2014, the diagnosis of epilepsy is made if:-

1. 2 unprovoked seizures occur more than 24 hours apart.
2. 1 unprovoked seizure when there is $\geq 60\%$ chance of seizure recurrence (similar to that after 2 unprovoked seizures) over the next 10 years; or
3. Epilepsy syndrome is identified.³

Epilepsy may be caused due to a variety of factors such as, genetics, developmental disorders, infections, traumatic injuries, neoplasm and diseases of degeneration.⁵ According to the World Health Organisation, approximately 50

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1325

Attitude and Practices of Health Care Professionals and Their Family Members toward Health Care Professionals Dealing with Covid-19 Patients in New Delhi, India

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ABSTRACT

BACKGROUND

Coronavirus was noticed in the mid-1930's and the first case of infection in humans was reported as a cold in 1960. In December 2019, clusters of pneumonia cases caused havoc in China. In order to eliminate the infection in the current pandemic, World Health Organisation (WHO) has furnished several recommendations, online courses, and training sessions to increase knowledge, prevention, and control among the health care workers (HCWs). It is crucial to guarantee the safety of not only the health care professionals but also the people who are in close contact with them. We wanted to assess the attitude and safety practices of family members of health care professionals dealing with Covid-19 patients and if the increasing number of cases in India have altered their reaction.

METHODS

A cross-sectional survey-based study was conducted from July - August 2020 on HCWs dealing with Covid-19 patients and any close contact personnel such as family members of HCWs in order to avoid the spread of Covid-19 among individuals aged 14 - 60 years.

RESULTS

A total of 368 respondents participated in the study. Majority of the respondents had a positive attitude. In terms of relation, children had a negative attitude towards having their family member deal with Covid-19 patients (46.2 %; N = 46) whereas, 51.5 % (N = 35) spouses had a more positive outlook and 49.2 % (N = 181) respondents reported that the increasing cases in India had altered their initial reaction.

CONCLUSIONS

Majority of the participants from our study reported a positive attitude towards a family member working in close contact with a Covid-19 patient. More than 50 % of the participants had undertaken various precautions to restrict the spread of the disease.

KEY WORDS

Health Personnel, Infectious Disease Transmission, Pandemic, Preventive Practices, Relatives

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