Management of an Epileptic Patient with Intellectual Disability: A Case Report and Clinical Guidelines

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Abstracts: Background: People with epilepsy have compromised livelihood due to the effect of disease and medications on the quality of life. Patients with accompanied intellectual disability have further difficulty to cope up in daily chores. Article highlights holistic management of patient having complex partial seizure with intellectual disability. Control of seizures along with the Psychological therapy was done to ameliorate standard of life. Management of patient consisted of history, oral prophylaxis, patient-parent counselling followed by non pharmacological treatment consisting of cognitive behaviour therapy, promotive autonomy therapy and promotive creativity therapy. She was coached in special school for physiotherapy, speech therapy, music therapy, yoga therapy and special education techniques. Team work between dentist, teachers and psychotherapists gave better accordance with each subsequent appointment. Apart from just teeth oriented approach one should focus on overall care. Timely referral to physician should be done for physical and mental ailments. The article also gives brief clinical guidelines on dental problems and there treatment in such patients along with seizure control of epileptic patients and behaviour management of patients with mental impairment. [Raval R NJIRM 2015; 6(5):108-111]

Key Words: Intellectual Disability, Epileptic patient, Psychological Dental Therapy, Comprehensive Dental treatment.

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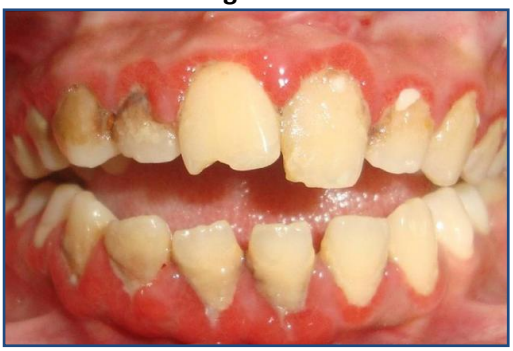
Introduction: Epilepsy is a chronic disease characterized by the risk of recurrent seizures. These individuals are prone to bodily and dental injuries. There is a close association between epilepsy and psychiatric disorders. 14-24% of patients have epilepsy with intellectual disability. The traditional approach to epilepsy consists of management of seizures. Concentrating only on the treatment of the seizures, which occupy only a small proportion of the patient's life, does not seem to address many of the issues that have an adverse impact on the quality of life. Psychological therapy of patient is equally important to ameliorate standard of life. Present report is a case of 15 year old girl having epilepsy with intellectual disability. Comprehensive management of patient was done involving dental treatment accompanied by psychological conditioning. Article has also highlighted concise review on holistic approach to patients with epilepsy and mental impairment.

Material and Methods: A 15 year old girl reported to Department of Periodontology, Manipal College of Dental Sciences, Manipal, Karnataka, India with the chief complain of deposits on her teeth. Clinical examination revealed abundant presence of material alba on facial and buccal surfaces of upper and lower front teeth accompanied by plaque and calculus on the same surfaces. Gingiva was inflamed without any loss of attachment. 11 and 21 showed Ellis Class 1 fracture attributed to fall during epileptic attack. She also reported anterior open bite and proclined upper anterior teeth and labially placed 11. Her father also gave the history of extraction of 36 and 46, 3 years back (fig 1).

Figure 1:

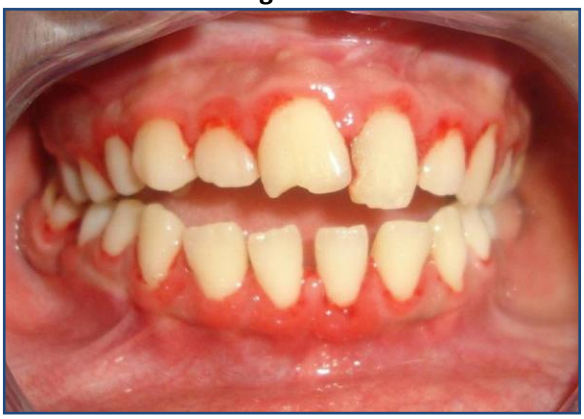


Medical history revealed presence of partial complex seizure since the age of one. It could be ascribed to head trauma during the same period. She was kept on Tegretol for 4 years and terminated due to elimination of epileptic attacks.

This was based on the fact that once a patient has been seizure-free for 2 years while on antiepileptic medications, the treating physician may consider withdrawing the patient from drug therapy. However, medications tablet Topaz 25mg, tablet Levera 500 mg, tablet frisium 10 mg were started again at the age of 7 due to recurrence. Treatment plan consisted of complete blood investigations followed by oral prophylaxis and referral to psychiatrist. Blood reports were normal. Oral prophylaxis was performed with ultrasonic scalers. She was prescribed with powered tooth brush and demonstrated regarding the use of same on cast. Parent and patient counselling was done regarding the regular use of dental aids, importance of oral hygiene and regular dental visits.

Patient was referred to Department of Psychiatry for mental counselling. Physician labelled her as a child with intellectual disability based on her IQ examination, behaviour patterns and difficulty to cope up compared to children of her age. She underwent non pharmacological treatment consisting of cognitive behaviour therapy, promotive autonomy therapy and promotive creativity therapy. Her parents were asked to change her school from conventional to one with the special needs where she underwent the services of physiotherapy, speech therapy, music therapy, yoga therapy and special education techniques by a team of interdisciplinary teachers. She was coached in daily living chores. There was close collaboration between dentist, teachers and psychotherapists to track her progress. Team work gave better accordance with each subsequent appointment. Currently patient is under follow up (fig 2).

Figure 2:



Results and Discussion: Proposed was the case of complex partial seizure with altered state of consciousness [1-3].

Management of epileptic patient with mental impairment includes detailed history, proper diagnosis and treatment in form of medication or surgery. In the present case, dental treatment was followed by psychiatric rehabilitation. This is based on the fact that early recognition and management of psychiatric disorders in patients with epilepsy is extremely important, to improve the quality of life, decreases suicide tendency and aid in better seizure control.

In almost all aspects of oral health and dental status, the condition of patients with epilepsy is significantly worse than age-matched groups in the general (non-epileptic) population[4]. It is estimated that 20-30% of patients with epilepsy have psychiatric disturbances[5].

Following are the Dental Considerations for an epileptic patient with mental impairment:

Periodontal considerations: The most common oral side effect of antiepileptic drugs seen in the dental office is gingival hyperplasia. Although gingival hyperplasia is seen almost exclusively with the use of phenytoin, some reports have also associated it with the use of carbamazepine [6,7]. However, the newer antiepileptic drugs produce oral manifestations only infrequently. Apart from enlargement, plaque control is of chief consideration for the epileptic patients. Reduced manual dexterity doesn't permit good oral hygiene, thus predisposing them to periodontal disease. Gingival enlargement in patients taking these medications is strongly correlated with poor plaque control[8]. Surgical treatment for periodontitis should be considered only after physician's consent. However, non-surgical treatment can be carried out in conventional way with few modifications.

Endodontic Problems: Increased caries prevalence is seen in epileptic patients. They should be prescribed with fluoride tooth pastes accompanied by the placement of pit and fissure sealants in indicated areas. Restoration of decayed tooth should be done with tough restorations like amalgam, metal crowns, etc. Atraumatic

restorative treatment should be favoured over electrically driven instruments wherever possible.

Prosthodontic problems: Periodontal and endodontic problems usually lead to early loss of teeth and call for prosthetic replacement. Few norms need to be followed such as discouragement of incisal restorations, use of fixed rather than removable prostheses and inclusion of additional abutments if fixed partial dentures are to be used [9].

Trauma: Generalized tonic-clonic seizures often cause minor oral injuries, such as tongue biting, tooth injuries[10] and in some cases maxillofacial trauma[11]. Treatment should be done using the bite block. To avoid seizure attacks intra-operatively, schedule the appointment during peak activity period of the drug and reduce the anxiety of the patient [6].

General Behavioral Guidelines[12, 13]

The actual dental procedures in mentally impaired individuals are similar to normal patients. The difference lies in the area of behaviour management. All instructions should be given slowly keeping in view the cognitive level of the patient. Appreciations and demonstration on the model goes long way for positive approach. Brief and early morning appointments are suitable for most of the mentally retarded individuals because they get easily frustrated and have short attention span.

Seizure first aid in dental office[14]:

1. Clear all instruments away from the patient.
2. Place the dental chair in a supported, supine position as near to the floor as possible.
3. Place the patient on his or her side (to decrease the chance of aspiration of secretions or dental materials in the patient's mouth).
4. Do not restrain the patient.
5. Do not put your fingers in his or her mouth (you might be bitten).
6. Time the seizure (the duration of the event may seem longer than it actually is).
7. Call for emergency if the seizure lasts longer than 3 minutes.
8. Call for emergency if the patient becomes cyanotic from the onset. Administer oxygen at a rate of 6–8 L/minute.
9. If the seizure lasts longer than 1 minute or for repeated seizures, administer a 10-mg dose of diazepam intramuscularly (IM) or intravenously (IV), or 2 mg of ativan, IV or IM, or 5 mg of mid-azolam, IM or IV[15, 16].
10. Beware of the possibility of compromised airway or uncontrollable seizure.

Once the seizure is over

1. Do not undertake further dental treatment that day.
2. Try to talk to the patient to evaluate the level of consciousness during the post-ictal phase.
3. Do not attempt to restrain the patient, as he or she might be confused.
4. Do not allow the patient to leave the office if his or her level of awareness is not fully restored.
5. Contact the patient's family, if he or she is alone.
6. Do a brief oral examination for sustained injuries.
7. Depending on post-ictal state, discharge the patient home with a responsible person, to his or her family physician or to an emergency room for further assessment.

Conclusion:

Treatment planning is the core of what makes a dentist. Apart from just teeth oriented approach one should focus on overall care. Timely referral to physician should be done for physical and mental ailments.

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