

ENDODONTIC MANAGEMENT OF AN ANXIOUS PATIENT - A CONSCIOUS APPROACH

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INTRODUCTION :

There has been relatively little research into dental management for anxious and unco-operative patients. The only alternative treatment for such patients are general anesthesia or sedation. However, inhalation of nitrous oxide/oxygen premix (SPO₂) remains a viable dental care and represents the only treatment alternative to general anesthesia¹. The use of conscious sedation with nitrous oxide has withstood the test of time with an excellent safety record^{2,3,4}. It reduces anxiety, pain, and memory of the treatment experienced. It is found to be efficacious, reliable and cost effective than general anesthesia¹.

The main factor related to fear and anxiety about dental treatment are fear of pain, needles, noise and sedation induced by use of hand pieces. Fear of needles and pain were responsible for upto 28% and 21% of adult patients respectively not visiting the dentist^{5,6}.

Anxiety and fear experienced by dental patients range from mild anxiety to phobic fear and represent a barrier to care. The main indication for nitrous oxide conscious sedation is to reduce fear, pain and anxiety in anxious and fearful patients, including those who are phobic and receptive to other techniques and for whom the only other alternative maybe general anesthesia.

Case report-

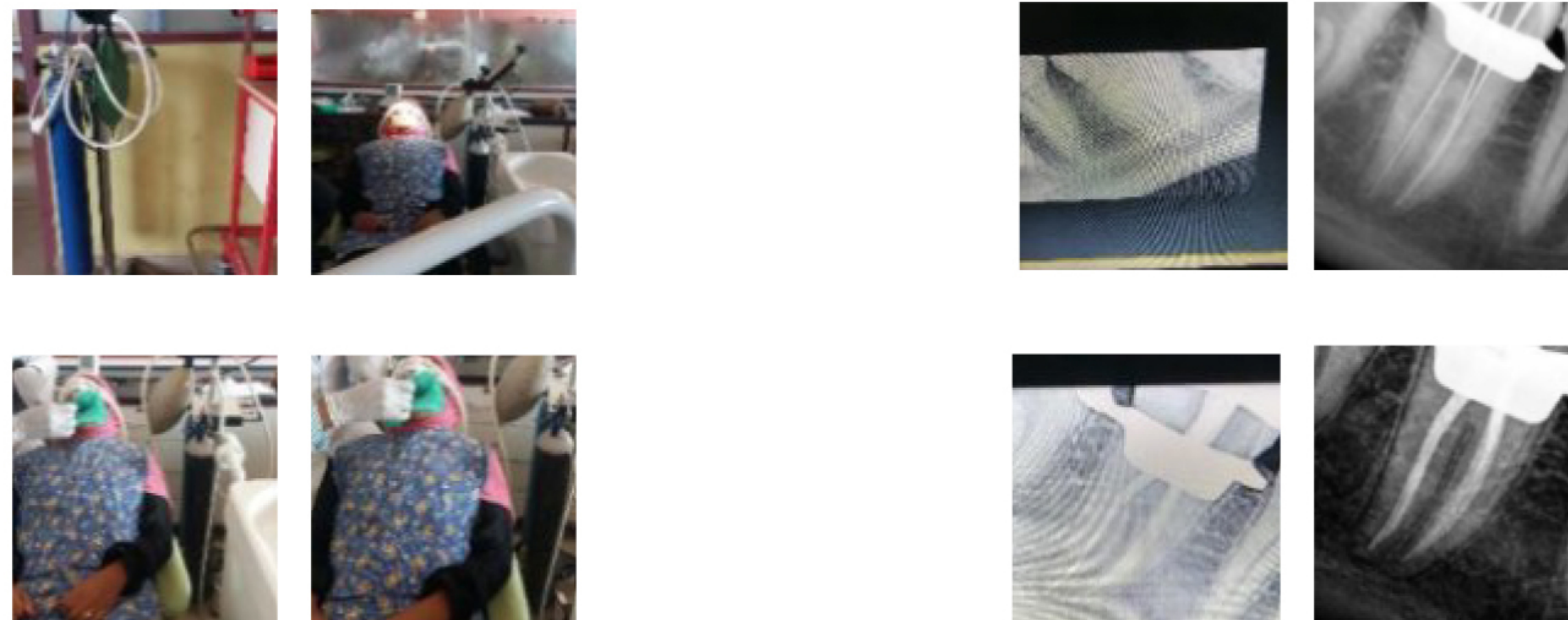
An 18- year old patient Ms. Asma Bhanu reported to department of Conservative dentistry and Endodontics, Sri Sai College of Dental Surgery, Vikarabad with a complaint of pain in right lower back tooth region. Pain is aggravated by thermal stimuli and on mastication.

Clinical examination revealed deep occlusal caries and Radiographic examination revealed Radiolucency involving pulp in relation to 47. According to clinical and Radiographic examination, Root canal treatment in relation to 47 was indicated and patient was informed regarding endodontic treatment. Patient was very apprehensive and anxious regarding the treatment. Effort was made to convince the patient to get treatment under local anesthesia but patient was very unco-operative and unwilling for local anesthetic procedure. Endodontic treatment under conscious sedation

was opted for this patient. Informed consent regarding treatment was taken to administer sedation. Prior to nitrous oxide sedation, the patient was screened, health and risk assessment was made, vital signs measured to check whether they are within normal range and Airway evaluated.

Patient was seated in the operatory chair and a moderate percentage of N₂O/O₂ given and patient was sedated. Endodontic treatment was initiated when patient achieved desired level of sedation under adequate rubber dam isolation. Desired level of sedation is maintained throughout the procedure.

Endodontic treatment is completed according to the protocol and pure oxygen is administered for 3-5 minutes and sedation is terminated. Patient was completely normal and patient discharged with written instructions.



DISCUSSION :-

Sedation is state of drowsiness and sleep from which a subject can be roused, whereas anesthesia is an unrousable state in which vital respiratory reflexes may be lost. Sedation drugs cause prolong and deep sedation and are unpredictable³. However, sedation by inhalation of nitrous oxide/ oxygen premix SPO₂ remains a viable dental care strategy and represents the only alternative to general anesthesia. Induction of sedation and recovery are both very quick, gas metabolism is negligible and almost eliminated through drugs.

Corporation and compliance are both decision making factors in treatment planning. Stress and anxiety are omnipresent during endodontic treatment regardless of age. In such situations achieving desirable endodontic outcome remains a challenge.

THE MAIN OBJECTIVES OF CONSCIOUS SEDATION ⁷:-

1. Reduction or elimination of anxiety
2. Reduce outward movement and reaction to dental treatment
3. Enhance communication and patient co-operation
4. Raise the pain reaction threshold
5. Increase tolerance for longer appointments
6. Aid in treatment of mentally/ physically compromised patients
7. Reduce gagging
8. Potentiate the effect of sedatives

INDICATION FOR USE OF NITROUS OXIDE :

1. Fearful or anxious patients
2. Patients with special health care needs
3. A patient whose gag reflex interfere the dental care
4. A patient for whom profound local anesthesia cannot be achieved
5. Co-operative patient undergoing lengthy dental procedure

A study of Chanpong et.al in 2005 evaluated patients demand for sedation or anesthesia to various procedures. Results stated that the percentage of patients demand for sedation includes 2% for Oral Prophylaxis, Extraction 40%, Endodontic Therapy 55 % and Periodontal Therapy 68% which indicates probability of fear and apprehension for and during endodontic therapy is quite high. This case report highlights the endodontic management of an anxious patient using nitrous oxide sedation.

Although few contra indications and disadvantages of nitrous oxide sedation exists, managing apprehensive patients with nitrous oxide inhalation holds primary treatment option compared to general anesthesia. Further research and studies are necessary in this regard.

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