

MANAGEMENT OF OROFACIAL PAIN BY NSAIDS DURING COVID-19 PANDEMIC

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On the basis of site of origin and radiation of pain, it is important to distinguish between dental pain from non-dental pain. Laboratory and imaging studies are helpful but in triage of COVID 19 intra oral imaging is contraindicated and not possible in tele-dentistry too.

The goal of management of Orofacial pain in the age of COVID 19 includes Pharmacological therapy only. Teledentistry treatment includes only advice, antibiotics and analgesics.¹⁻³

NSAIDs are most commonly prescribed drugs for the control of oral and dental pain prescribed by Dental surgeons. There are nearly two dozen NSAIDs and mostly prescribed are ibuprofen, diclofenac, Aspirin, piroxicam, naproxen ect .There is lack of evidence that these drugs should be contraindicated in COVID 19 pandemic but caution may be taken for prescribing it. Therefore, pharmacological review of these drugs can give an idea what is best in the interest of patients.

NSADIS are the most common pain reliever in the world and more than 60 million people in US use it for arthritis, sprains and dental pain .The mechanism of action of this drug is it works on chemical level and blocks the effects of special enzymes specifically Cox 1 and Cox 2 enzymes which play a role in making prostaglandins .By blocking the Cox enzymes NSAIDs stop making prostaglandins.⁴ So there is less swelling and pain. .There are many side effects of these drugs such as GIT problems, cardiovascular complications⁵ and allergic reactions specially asthma and bronchospasms. Thus NSAIDs are not recommended in patients who are suffering from Asthma ,hives or allergic reaction .If patient is suffering from asthma and aspirin sensitive it causes severe bronchospasm which can be life threatening NSAIDs work by inhibiting protein called cyclooxygenase. While over production of chemicals leukotriene are released into airways by allergy cells in bronchial tubes. This causes bronchial muscles to spasm and bronchial tubes to swell, thus Ibuprofen affect asthmatic patients and NASIDs exacerbated respiratory disease .⁶

COVID 19 pandemic has affected the globe causing variety of mild to severe symptoms which can lead to multiple organ failure and pandemic continues to accelerate .There is great concern that NSAIDs are associated with increased risk of adverse effects when used

in patients with Acute respiratory infection including COVID-19⁷ and WHO on 8th March 2020 warns “Avoid taking ibuprofen for COVID 19 symptoms while NHS recommend Paracetamol for COVID 19 symptoms. Now WHO issued Scientific brief on 19th April mentioned that there no evidence that adverse effects occur with the use of NSAIDs.

However, there is no strong evidence that NSAIDs have causal role in complicated pneumonia but deserves attention because of experience and pharmacological rationale that attributes to NSAIDs in combating inflammation via chemo taxis , adhesion ,aggregation, degranulation and the inhibition of prostaglandins synthesis.⁸

The BMJ on 17 April ,2020 published in news section states that “ COVID 19 : ibuprofen can be used for symptoms ,says UK agency, but reasons for change in advice are unclear”.⁹ According to this review there is no published evidence in favor or against the use of NSAIDs in dental pain in COVID 19 Pandemic. Given the current availability of literature, caution should be exercised until further evidence emerges for the use of NSAIDs in COVID 19 patients in dentistry.

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