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Letter to the Editor

A protocol for the management of maxillofacial injuries in the wake of the COVID-19 pandemic

Sir,

The COVID-19 pandemic, caused by the novel coronavirus has had health authorities and healthcare professionals scurrying for resources be it in terms of equipment, personal protective or otherwise, conserving or for lack of a better word judiciously utilizing the available infrastructure. The fatality rate of COVID-19 reportedly seems to increase with age and like other illnesses is affected by comorbidities. A very real concern is however, the inordinate proportion of health workers at risk of contracting the disease, to the tune of 29% of the initially reported cases [1]. This seriously draws attention to a modification of healthcare practices being routinely followed.

An unfortunate fallout of this situation is that a number of patients who would otherwise have been treated promptly are facing delays which is piling on the agony in the face of an already overburdened system.

It is further a major concern that this virus, in its novel nature has stymied a number of otherwise smoothly running protocols. The oral & maxillofacial region and by that virtue surgery of the same is correlated to an increased risk of the transfer of the SARS CoV-2.

The unique nature of spread of this virus renders a distinctive conundrum to the speciality, although not an airborne infection, the viral particles if aerosolized, tend to remain for protracted periods of time in the environment, further, oral & maxillofacial surgery procedures deal with the oral cavity, it is in the saliva and at the level of the naso- and oro-pharynx that the virus has been recovered in its highest titres. So much so that these form bases of testing methodology.

In times of a pandemic, wherein the entire healthcare system of a country may be overwhelmed or might be gearing up to face a massive wave of patients, it is imperative to have protocols in place in order to eliminate errors, maintain the flow of healthcare and provide effective management of the presenting patients, both those part of the pandemic and the ones without as after all, a patient not affected by the COVID-19 is also a patient. The author aimed to collate evidence in all its forms as this is the need of the hour in the author’s opinion, to provide a protocol for the management of maxillofacial trauma patients in both the emergent, urgent and delayed frames of time.

On the basis of this collated literature, the author aims to provide a suggested protocol for the triage and/or management of maxillofacial injuries during the pandemic.

This communication aims to concentrate on making suggestions pertaining to the management of maxillofacial injuries alone without confounding the same by making it a part of a holistic view of the entire specialty of maxillofacial surgery, the suggestions are aimed to be simplistic and readily executable along with being amenable to suitable modifications as, specially, in many parts of the developing world, injuries of the maxillofacial region are not always attended by a specialist, a dynamic situation requires protocols which are simple and capable of being as dynamic as the challenges being faced. The algorithmic workflow and accompanying interpretation table (Table 1 and Fig. 1) aim to serve as a general framework within which units can adapt their specific protocols without having to commit to a particular set of guidelines as many a times guidelines being issued do not match the realities of units all over the world. Protocols tend to be rigid and rightfully so, however we are faced with a disease without an evidence base which is constantly evolving both in terms of its pathophysiology and the logistics it entails and hence it is the author’s sincere hope that a more fluid, adaptable framework for the management of injuries of the maxillofacial region would aid units in functioning.

A few points to be kept in mind [1,2,3]:

1. Relatively easy to differentiate between emergency and elective procedures, those who can wait should be allowed to do so.
2. Grey area between urgent and potentially delayed procedures needs to be addressed.
3. If a conservative methodology exists to manage a potentially surgical correction, that should be preferred (atleast for the time being)
4. Aerosol Generating Procedures (AGPs) need to be identified in the maxillofacial surgery unit (airway care, irrigation, handpieces such as piezoelectric, ultrasonic, high-speed, abscess drainage) and coordination for identifying the same with allied specialities.
5. All decisions should be made in the backdrop of conserving resources, as it is simply not the procedure but the ancillary support that it requires which needs to be conserved
6. In light of all such decisions, a case to case dynamic decision making process preferably, at the consultant level needs to be established
7. It should also be borne in mind that current decision making would impact healthcare burden once the pandemic passes and would also potentially complicate or increase the surgical difficulty of relatively straightforward cases presenting at this time.

The merits of these recommendations would be effectively streamlining triage, reducing the risk of healthcare workers contracting the disease, ensuring patients with injuries of a life threatening nature or those with injuries entailing significant functional impairment are provided care regardless of their COVID status. It would also serve to convey a reassuring message to the public in general that hospitals are not just for COVID patients and thereby serve to reaffirm trust in our institutions.

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Table 1
Description of priorities with implications of deferral. (+/- signify COVID-19 status)

| Category | Priority       | Condition                                                                 | Future Implications of deferral |
|----------|----------------|---------------------------------------------------------------------------|---------------------------------|
| I        | Emergent (+/-) | Hemorrhage, infected injuries posing threat for further spread            | Do not defer                    |
| II       | Urgent (+/-)   | Orbital trauma with progressively reduced visual acuity, any injury posing a threat to the airway | Do not defer                    |
| III      | Intermediate (+/-) | Closed fractures (assess functional impairment)                           | Defer, functional impairment may increase when presented at a later date. Consider performing deformity correction later. Counsel the patient regarding the same |
| IV       | Low (+/-)      | Any injury with a conservative modality of management, without progressive impairment of function | Defer, perform deformity correction at a later date. Counsel the patient regarding the same |

Fig. 1. An algorithmic protocol for the management of maxillofacial injuries in times of the COVID-19 pandemic.

The perceived limitations of this protocol would be those parallelloing the postponement of care such as increasing the number of patients awaiting surgery post the pandemic, less than optimal results in some cases necessitating a possibly more complicated second surgical procedure and the psychological toll on the patient for living with an injury and awaiting treatment.

In a parting remark, it would serve us well to append every recommendation and every guideline calling for deferring of treatment or suggesting a so-called substandard procedure with the word ‘empathise’. This is the need of the hour, after all, we are all in this together.

Declaration of Competing Interest
The author has no financial interests to disclose. The author does not perceive any conflicts of interests financially or in terms of publication of this manuscript.

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