



ORIGINAL RESEARCH PAPER

Orthopaedics

ROLE OF AN ORTHOPAEDIC RESIDENT IN THE WAR AGAINST COVID-19 AND FUTURE PROSPECTS

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ABSTRACT

The ongoing pandemic of Covid-19 has caused global concerns. Elective orthopaedic surgeries, which includes a major part of orthopaedic operation theatre have been cancelled. The exam going orthopaedic residents are also working in the COVID hospital. We describe the role played by an orthopaedic resident during this pandemic. We will also look at the losses incurred to the residents and the future challenges.

INTRODUCTION

The year 2020 was supposed to be a big one for all the exam going final year residents. The dream of crossing a milestone of completing a postgraduate degree and becoming an orthopaedic surgeon was going to be a reality soon. But suddenly things changed. The year 2020 has brought lots of surprises and changed our lives drastically, orthopaedic surgeons being no exception.

It all started way back in the end of 2019. A small virus which originated from China "COVID-19" was the culprit. COVID-19 is the abbreviation for Corona virus disease. It belongs to the SARS group of respiratory viruses. It is a single stranded RNA virus.

REPORT

India also saw a gradual rise in the number of cases and soon a nationwide lockdown was called for. Part of our hospital was then turned into a COVID hospital catering full time COVID-19 services continuing the emergency non COVID services in a separate building. All the elective orthopaedic surgeries were cancelled and the patients were discharged as per instructions by the concerned authorities. As orthopaedic surgery involves aerosol generating procedures like use of power drill, saw, reamers, electrocautery etc, for emergency surgeries, patient were screened thoroughly. Those having no history of contacts and no COVID symptoms were only operated taking all precautions like wearing a cap, N95 mask and PPE kits. The morbidity and mortality rates of surgery during the pandemic is not known. There is no literature available for this. Certain measures that need to be taken are:

1. To decrease the aerosol generation in orthopaedic surgery, certain steps like cover for power tools, unreamed nailing, hand drilling, avoidance of electrocautery and laminar flow in operation theatre.
2. The post-operative stay period in the hospitals should be reduced and patients should be followed up through follow up OPDs. Telemedicine is an option for consultation for people coming from faraway places.
3. Surgeons should constantly be in touch with the changing protocols and new SOP's.

To rise to the need of the hour, we were posted to work in the battlefield as frontline "COVID warriors". As an orthopaedic surgeon, we were not accustomed to this work and we had to learn the various skills needed as per the situation. Firstly, we were given a thorough knowledge about COVID-19. We were also trained regarding hand hygiene, the donning and doffing of PPE and swab collection. We then started to learn all the terminologies and the treatment protocols related to COVID-

19 including the AIIMS protocol. But as the protocols were changing frequently, every time we had to remember a new protocol. To efficiently manage the man power, we were divided into teams as COVID, non COVID and quarantine team.

We were posted at various places like flu OPD, Triage area, suspected ward, positive stable and unstable wards, and COVID-ICU.

Starting with taking a detailed history of patients we also collected nasopharyngeal swabs as per the ICMR guidelines. An orthopaedic surgeon who is fond of inserting a nail was now inserting a swab stick into the nasal cavity of patients. We used to monitor the vitals of the patients including oxygen saturation and blood sugar levels. We used to collect blood samples, take ECG, secure an intravenous catheter, insert Foley's catheter and Ryle's tube. We also assisted in making the patients prone as per the CARP protocol, tracing of lab reports and data collection. Lastly, we also used to spend some time in counselling our patients and bringing positivity in them as they say "Heal your mind, heal your body".

There are various challenges in the future for the residents. We would like to highlight a few:

1. Loss of orthopaedic surgery exposure and skill development in the crucial residency period. Virtual surgery simulator is a valuable option to help the residents with skill development.
2. Lack of exposure to elective cases. Gradually plan to start elective orthopaedic surgeries taking all precautions once the pandemic settles.
3. Loss of academics. This can be compensated to some extent by online teaching and webinars, which have already been started in our institute.

CONCLUSION

This pandemic has created a huge crisis and taught us various lessons such as the need to adapt to the changing situation, staying positive and bringing out the best in you in the worst times and being prepared for the worst. Despite the difficulties we faced, we were able to cope up to the situation quickly. We realised that even we as orthopaedic surgeons were able to bring about a change in the lives of patients when we started to bring back the smiles on their faces. Since the beginning, working in a COVID hospital till date, it was overall a great experience. Lastly, we do not know how long this pandemic will go on, but we pledge to fight until we win this battle. Losses incurred to the residents should be compensated in whatever ways possible. Post pandemic

surgeries should be done taking all precautions.

LIST OF ABBREVIATIONS

SARS- Severe acute respiratory syndrome

COVID- Corona virus disease

RNA- Ribonucleic acid

PPE- Personal protective equipment

OPD- Out patient department

SOP- Standard operating procedure

AIIMS- All India Institute of Medical Sciences

ICU- Intensive care unit

ICMR- Indian Council of Medical Research

ECG- Electrocardiogram

CARP- COVID awake repositioning/ proning

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