Acta Scientific Orthopaedics (ISSN: 2581-8635)

Volume 3 Issue 6 June 2020

Editorial

COVID 19 and its Impact on Orthopaedic Practice

Nithin Sunku*

Consultant Orthopaedic & Joint Repalcement Surgeon, RMM Global Hospital Trauma Centre, (Unit of Global Hospital & Research Centre), India

***Corresponding Author:** Nithin Sunku, Consultant Orthopaedic & Joint Repalcement Surgeon, RMM Global Hospital Trauma Centre, (Unit of Global Hospital & Research Centre), India.

Received: April 16, 2020

Published: May 02, 2020

Recent outbreak of COVID 19 [Coronavirus] during early 2020 has caused a pandemic with 2 million positive cases (by Mid-April 2020) with hundred thousands of people dying in over 210 countries raised an alarm in health care field. This resulted in change of the practice among all specialities. Orthopaedic practice changed and many guidelines were framed to make sure both surgeon and patient are safe and not infected by this novel coronavirus.

This novel coronavirus disease (COVID-19) is caused by the SARS coronavirus 2 (SARS-CoV-2) which had index case starting from Wuhan, China during December 2019. Later it has spread rapidly worldwide [1]. Clinical features of this were fever, loss of taste, non-productive cough, dyspnea, myalgia, fatigue, hypolymphaemia and radiographic evidence of pneumonia. Some of the complications which affected many organs were acute respiratory distress syndrome [ARDS], arrhythmia, shock, acute cardiac injury, secondary infection, and acute kidney injury resulting in death [2,3]. Also, the incubation period is quite long and COVID-19 is highly contagious during that period [4]. Asymptomatic carrier of this virus account for 1% of the laboratory confirmed cases of infection [5].

There were many guidelines released by respective countries. Also, medical and surgical associations issued advisories on the change of practice during this pandemic. British Orthopaedic association issued a detailed plan on management of patients who need urgent care and how to treat orthopaedic conditions and trauma during the coronavirus pandemic [6]. Similarly, the Indian Orthopaedic association came out with guidelines on how to manage this extraordinary circumstance [7]. They emphasized on focussing of non-operative management reducing frequent exposure and follow up.

One of the retrospective cohort study done showed 44.1% patients needed ICU care, and mortality was 20.5%. They had operated on 34 patients with median age 55 years. Unfortunately, all patients developed COVID-19 pneumonia shortly after surgery with abnormal findings on chest CT scans. They opined further that risk factors for the poor prognosis of operative patients with COVID-19 need to be further study in larger sample size [8].

Another study had 10 patients with fracture spread over 8 hospitals. They conclude that clinical features and early prognosis of COVID-19 in patients with fracture tended to be more severe than without fracture. This finding may be related to the duration between the development of symptoms and presentation. Surgical treatment should be carried out cautiously or in most non operative care should be chosen for patients with fracture in COVID-19-affected areas. This hold good especially in older individuals with intertrochanteric fractures [9].

There were few states which published guidelines specific to orthopaedic surgery during the COVID-19 outbreak. In this study they included 30 states which published guidance regarding the discontinuation of elective procedures, and 16 states provided a definition of "elective" procedures or specific guidance for determining which procedures should continue to be performed. Only 5 states provided guidelines specifically mentioning orthopaedic surgery; of those, 4 states explicitly allowed for trauma-related procedures and 4 states provided guidance against performing arthroplasty. Ten states provided guidelines allowing for the continuation of oncological procedures. Also, there were individualised guidelines by hospital system and surgeons with the responsibility of balancing the benefits of surgery with the risks to public health [10].

Finally, to conclude the planned elective/non-emergent surgeries and clinic visits can be postponed or cancelled. Operate only if there is open, pathological fracture, penetrating wounds, irreducible dislocations. Minimize use of essential items (i.e. masks, beds, protective equipment, cleaning supplies, ventilators). Also plan for good space and supplies to be enough anticipating surge of critical care patients. Create multiple teams that are completely insulated from one another. Conferences, courses, meetings, and even follow-up patient examinations, virtually or remotely if they cannot be cancelled altogether.

Bibliography

1. Holshue ML., *et al*. "First case of 2019 novel coronavirus in the United States". *New England Journal of Medicine* 382.10 (2020): 929-936.

2. Guan WJ., *et al*. "Clinical characteristics of corona virus disease 2019 in China". *New England Journal of Medicine* 382 (2020): 1708-1720.

3. Huang C., *et al*. "Clinical features of patients infected with 2019 novel corona virus in Wuhan, China". *Lancet* 395.10223 (2020): 497-506.

4. Yu P., *et al*. "A familial cluster of infection associated with the 2019 novel corona virus indicating possible person-to-person transmission during the incubation period". *Journal of Infectious Diseases* (2020).

5. Wu Z and McGoogan JM. "Characteristics of and important lessons from the corona virus disease 2019 (COVID-19) outbreak in China: summary of a report of 72314 cases from the Chinese center for disease control and prevention". *Journal of the American Medical Association* (2020).

6. Management of patients with urgent orthopaedic conditions and trauma during the coronavirus pandemic. BOASTs Final (2020).

7. COVID-19 IOA guidelines. Indian Orthopaedic Association (2020).

8. S Lei., *et al*. "Clinical characteristics and outcomes of patients undergoing surgeries during the incubation period of COVID-19 infection". *EClinicalMedicine* (2020).

9. Bobin Mi., *et al*. "Characteristics and Early Prognosis of COVID-19 infection in Fracture Patients". *Journal of Bone and Joint Surgery: American Volume* (2020).

10. Nikolas J. "A Review of State Guidelines for Elective Orthopaedic Procedures During the COVID-19 Outbreak". *Journal of Bone and Joint Surgery: American Volume* (2020).