Birjand University of Medical Sciences

Journal of Surgery and Trauma

Letter to Editor

Challenges and management of spine trauma during Covid-19

Moshiur Rahman[1], Robert Ahmed Khan[2]

[1] Assistant Professor, Neurosurgery Department, Holy Family Red Crescent Medical College, Dhaka, Bangladesh
[2] Medical Officer, Neurosurgery Department, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh

Corresponding Author:
Tel: +1713365274
Email: dr.tutul@yahoo.com

Dear Editor

The COVID-19 pandemic is the most serious threat to national health systems in a century. The rapid development and spread of the COVID-19 disease necessitated a significant shift in clinical practice and a restructuring of institutional structures. Elective surgery has been drastically reduced in Spinal Surgery Units around the world since the start of the pandemic, and spine trauma management techniques have changed dramatically. All elective treatments, including spinal surgeries, were cancelled due to the virus's highly contagious nature, reduced nosocomial infection, and freed up extra beds for COVID-19 diseases (1).Emergencies, such as growing neurological deficits or spine instability caused by fractures, infections, or malignancies, could not be postponed (2).While different considerations should have been made before performing routine spine procedures, the latter was rendered more difficult due to unknown characteristics of the COVID-19 infection (2).In one study, all patients were polytrauma patients with a higher risk of pneumonia complications due to trauma (2).The usefulness of corticosteroids in the treatment of spinal cord injury is debated (3-4). In the instance of COVID-19 infection, Russell et al. advised not to use corticosteroids (5). Pneumonia was linked to a 20percent increase in death rate following posterior lumbar fusion surgeries in research by Bohl et al. (6).

There is no agreement among spine surgeons on treating patients with vertebral fractures and spinal cord injuries. In the event of COVID-19 infection, this issue may be much more essential. Some measures can be proposed to help spine surgeons approach spine trauma more effectively during the COVID-19 epidemic. During the pandemic, all patients who are going to have surgery should be tested for COVID-19 infection. To decrease surgery-related complications and preserve ICU beds, unnecessary procedures for these patients should be avoided. In one study, most patients undergoing spine surgery required an ICU bed for an extended period (mean 8 days) (2).During the lockdown, spinal surgical activity had no additional impact on the hospital's resources regarding care settings, perioperative, or postoperative problems.

Citation: Rahman M, Ahmed Khan R. Challenges and management of spine trauma during Covid-19. J Surg Trauma. 2021; 9(3):89-90.

Received: August 23, 2021 ***Revised: September 5, 2021*** ***Accepted: September 5, 2021***

[Downloaded from jsurgery.bums.ac.ir on 2026-09-17]

[DOI: 10.32592/jsurgery.2021.9.3.100]

A significant delay in care for spine patients may progress extremities weakening and discomfort, with less predictable outcomes after surgery. Furthermore, during the lockdown, delaying surgical decompression in certain situations, such as myelopathy, may worsen neurological and irreparable patient harm.

Although there is no disagreement about the need for spine surgery in cases of severe trauma, epidural abscess, or malignancies, there is a need to explain and establish basic guidelines for spinal diseases involving myelopathy, radiculopathy, or motor impairments.

A framework for institutions and spine departments may help guide procedures to maintain critical surgical spine care.

Alternative surgical strategies and less invasive approaches may be considered for spine surgeries that cannot be postponed, depending on hospital bed availability.

Conflicts of Interest

There is no conflict of interest.

References

1. Cucinotta D, Vanelli M. WHO Declares COVID-19 a Pandemic. Acta bio-medica: Atenei Parmensis. 2020; 91(1):157.

2. Chehrassan M, Ebrahimpour A, Ghandhari H, et al. Management of Spine Trauma in COVID-19 Pandemic: A Preliminary Report. Arch Bone Jt Surg. 2020; 8:270-276.

3. Liu Z, Yang Y, He L, Pang M, Luo C, Liu B, et al. Highdose methylprednisolone for acute traumatic spinal cord injury: A meta-analysis. Neurology. 2019 ;93(9):841-850.

4. Rabinstein AA. Traumatic Spinal Cord Injury. Continuum (Minneapolis, Minn). 2018;(2, Spinal Cord Disorders):551-566.

5. Russell CD, Millar JE, Baillie JK. Clinical evidence does not support corticosteroid treatment for 2019-nCoV lung injury. The Lancet. 2020;395(10223):473-475.

6. Bohl DD, Mayo BC, Massel DH, Iantorno SE, Ahn J, Basques BA, et al. Incidence and risk factors for pneumonia after posterior lumbar fusion procedures: an ACS-NSQIP study. Spine. 2016;41(12):1058-1063.

[Downloaded from jsurgery.bums.ac.ir on 2026-09-17]

[DOI: 10.32592/jsurgery.2021.9.3.100]