International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2020): 7.803

Regional Anaesthesia during COVID-19 Pandemic: Need of an Hour!

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1. Introduction

Coronavirus pandemic (COVID-19) has affected large number of population in the world. The first cases were seen in Wuhan, china in December 2019 (2). Since then it has rapidly spread in the world with its first wave in 2020 and second wave in 2021 leaving large number of people infected and increased number of deaths. Most common symptoms are cough, fever, body ache and difficulty in breathing. Anesthesiologists are the frontline warriors in these difficult times in operation theaters and also in critical care unit. Their safety and the safety of patients are of utmost importance. Taking this into account, regional anaesthesia is the technique of choice in COVID suspected or positive patients. It minimizes the complications and risk associated with general anaesthesia. COVID infection spread through droplet transmission. So regional anaesthesia avoids the aerosol generated procedure during intubation and extubation in general anaesthesia and avoids the pollution of OTs. Also it avoids the respiratory complications in coronavirus infected patients. In this report we would like to share our clinical experience in COVID-19 patients.

A written informed consent was taken from all the patients before taking them for surgery. According to practice recommendations on neuraxial anesthesia and peripheral nerve blocks during the COVID-19 by the American Society of Regional Anesthesia and Pain Medicine (ASRA) and European Society of Regional Anesthesia and Pain Therapy (ESRA) (https://www.asra.com/page/2905/practice-recommendations-on-neuraxial-anesthesia-and-peripheral-nerveblocks-dur), we preferred regional anesthesia over general anesthesia for these patients to reduce the aerosol generating procedure during general anaesthesia and avoiding the airway manipulation. Spinal anaesthesia, epidural anaesthesia and peripheral nerve blocks are the options in regional techniques. We donned the personal protection equipment's in all the cases (PPEs) while performing the blocks. All the patients wore a mask before shifting them into preoperating room from the ward. Ultrasound guided blocks was given by senior expert anesthesiologist to minimize the time needed for blocks.

Our first case was a 27 year old female posted for emergency caesarean section in view of non-progress of labour. We performed spinal anaesthesia at L3-L4 level after the normal platelet count and INR report. Patient had fall in blood pressure which was best managed with mephentermine.

Our second case was 70 year old female posted for left side fracture neck femur. Patient had cough and mild fever. Chest examination showed wheeze on right side. After wearing PPE, and ruling out thrombocytopenia spinal anaesthesia was given at l3-l4 level.

Third case was 25 year old male posted for radius ulna fracture. Patient had cough and mild fever. Ultrasound guided supraclavicular block was given. Patient had adequate pain relief in the postoperative care room.

2. Discussion

Anesthesiologists are in close contact of patients in operation theaters and in intensive care units. So choosing a technique to minimize the spread of infection is very important in this pandemic era. Regional anaesthesia has many advantages over general anaesthesia like it avoids the aerosol generating procedure during intubation and extubation, prevents the post-operative nausea and vomiting, prevents the respiratory complications associated with COVID infection, decreases the stress response to surgery and also decreases the length of stay. So regional techniques in the form of spinal, epidural or peripheral nerve blockade should be used (lie et al 2020; altiparmk et al. 2020; Chen et al. 2020b) (1, 3, 4). Normal platelet count and INR should be the prerequisite for giving regional anaesthesia in COVID suspected or positive patients. These values were normal in our patients. In conclusion, regional anaesthesia is safe in this pandemic era and should be our first choice in operation theaters. Necessary Precautions should be taken while performing regional anaesthesia to minimize the risk of transmission.

List of abbreviations: None

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