

Case Series

COVID-19 lockdown induced fractures

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ABSTRACT

Tough times and tough measures taken by central government of India. India is under national lockdown due to COVID-19 pandemic. It was difficult for common man in many ways to deal with lockdown. The basics of life food, fuel, transport was handicapped during lockdown phase. People in major cities and towns have sources of food availability in terms of continuous grocery supply from supermarket chains, food delivery chains. It was rural population of India that was more effected due to lockdown rather than urban population. The rural population of India sustained on food that was available in around houses and in the fields. Most of them went to fields and bought vegetables for their lunch and dinner. During this process people climbed trees and fell down causing major limb injuries. We present few scenarios of injury that occurred during lockdown of COVID-19 pandemic causing major limb fractures. Tough times and tough measures to control pandemic COVID-19 caused new problems for people in search of food and daily needs. These are some of those injuries which were able to document in these tough times.

Keywords: Lockdown problems, Lockdown and fractures, Health issues in rural India during lockdown

INTRODUCTION

COVID-19 and its rapid spread and high mortality have forced governments to impose lockdown.^{1,2} Urban and rural populations were all effected due to sudden lockdown orders. Rural areas are effected relatively more than urban areas.^{3,4}

COVID-19 has created tremors among all nations of world.⁵ World is shaken with its impact in health sector. Victims range from prince Charles, Boris Johnson, tom hanks to even common rural people.^{6,7} Mighty and stronger nations were no exceptions.⁸ Urban populations are more concentrated by government as most of the working class is present in urban areas. Food, health and hygiene are satisfactory in urban population. Public services like sanitation and hygiene department, food delivery chains are active in most of the urban areas and urban areas have

sufficient health, food and hygiene resources. it is the rural population that is affected most due to lack of medical supplies, lack of food supplies, lack of proper transport.^{3,4} Poor and left out people of rural India depend on their resources for food. In a move to their resources these are some of incidents that happened during lockdown phase that has caused serious injuries to these people.

Throughout the year farmers spent huge funds over various crops and finally they couldn't even find harvesting machines, manual labour for crop harvesting, few injuries happened during harvesting of crop by the farmers himself (Figure 1).⁹

CASE SERIES

45 years male presents to emergency department from rural village after sustaining an injury while harvesting

crop at his farm due to unavailability of harvesting machinery with bleeding wound over volar aspect of right forearm (Figure 2) over zone 5 flexor aspect.¹⁰ Due to unavailability of health care facilities in rural area. This patient had to travel two hundred miles to reach our facility. Where initial management with through saline wash, starting on empirical antibiotics and sterile dressing to prevent infection was done, findings after detailed evaluation. Vascularity is intact, Spo2 100% in all fingers, spaghetti injury wrist - complete transection of flexor digitorum superficialis, flexor digitorum profundus of middle and ring fingers and median nerve (neurotmesis).¹¹ Complete transection of flexor carpi ulnaris.



Figure 1: (a) Due to unavailability of harvesting machinery during lockdown phase and (b) farmers harvesting crops by themselves.



Figure 2: Spaghetti injury wrist that occurred due to sickle injury while harvesting crop at field.

Management - exploration of tendon ends and repair of all tendons end to end and median nerve repair was done. Postoperative immobilisation of wrist for six weeks due to injury to more than one tendon.¹² He will need rehabilitation programme after six weeks and nerve training after six weeks.

52 years male fell from tamarind tree 20 feet high. He was trying to get tamarind leaves as food. Following fall, he noticed severe pain in left hip and unable to stand or walk. He presented to us a day after injury. All rural centres of healthcare have no inventory to fix fracture due to lockdown restrictions. He travelled 100 miles to reach our facility. On evaluation we noticed subtrochanteric fracture left femur (Figure 3). He was admitted and he underwent

long proximal femur nail fixation.¹³ post-operative rehabilitation will be as per standard guidelines.

55 years female presented to us with pain in right hip and unable to walk following fall from mango tree. Mango was staple food for Indians during summer season. She travelled about 150 miles to reach us as inventory was not available for surgery due to lockdown restrictions near her village. she was evaluated and diagnosed to have reverse oblique intertrochanteric fracture. She underwent proximal femoral nail fixation for the same (Figure 4).¹³



Figure 3 (a and b): Pre-operative and post-operative radiographs of 52 years male who sustained subtrochanteric fracture following fall from tamarind tree.



Figure 4 (a and b): Reverse oblique intertrochanteric fracture femur sustained by fall from mango tree.

29 years young male fell down from drumstick tree following which he came to emergency department with pain and swelling in ankle and heel. He was evaluated and diagnosed and found to have right calcaneum fracture (Figure 5) for which he underwent ORIF calcaneum with specific inventory.¹⁴ He will need 12 weeks of follow-up and rehabilitation program.

35 years male came with pain in left elbow. He was hit by police with a lathi when he was roaming on roads in lockdown period. He was evaluated and diagnosed to have distal humerus fracture with intact neurovascular status. He underwent ORIF distal humerus (Figure 6) with

locking plate.¹⁵ He will be followed for next six weeks and will undergo rehabilitation program.

25 years old male came to emergency department with pain and swelling over right knee following fall from mango tree of height 20 feet. He was evaluated and diagnosed to have right distal femur fracture (medial condyle). he underwent open reduction and internal fixation (Figure 7) with medial femur plate and screw fixation.¹⁶ He will need six weeks of non-weight bearing gait and rehabilitation program later.

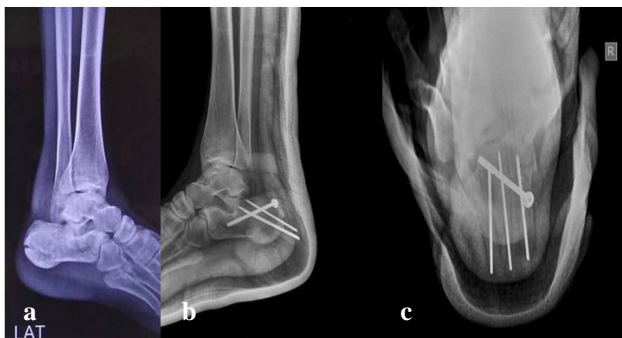


Figure 5 (a-c): Young male sustained calcaneum fracture after fall from drum stick tree of height 20 feet.



Figure 6 (a-d): Young male sustained distal humerus fracture after being hit with lathi by police.



Figure 7 (a-c): Twenty-five years male sustained medial condyle fracture after fall from mango tree.

DISCUSSION

Containment of covid-19 is very difficult process. Researches have published methods of controlling covid-19 spread.¹⁷⁻¹⁹ Governments throughout the world are taking war foot measures to prevent transmission, control infection, diagnosing and treating the pandemic covid-19. As a part of prevention and control government of India has implemented the most challenging step of national lockdown. National lockdown has many implications on life of Indian people. Indian economy, agricultural and many other sectors are affected.^{20,21} The Prime Minster and Government of India have taken bold decision of lockdown. the fact that protecting people is more important than protecting economy. The famous Telegu saying Deshamante Matti Kadoi Deshamante Manushuloi (means- nation is not its land but a nation is made of its people) which reinstates that protecting people is foremost duty of its government.²² Tough measures have been taken for the well-being of the people. The other side of lockdown and its consequences has impact on tourism sector, industrial sector, agricultural sector, health sector and hospitality services. People of India have also supported the decision of lockdown and have followed the path laid down by the government. But in a large country like India with huge population there will be certain difficulties faced by the community during the lockdown. The personnel protection wear, the sanitisation equipment, the ventilator services, the hospital facilities will be tried and tested and acquired if need be. some rural and mid-town hospitals have stopped some of the hospital services because of lack of personnel protective wear. Even the orthopaedic implant inventory services are stalled during this tough time due to lack of manual labour. Most of the patients who have sustained injuries during this phase have travelled miles to reach a proper healthcare facility with all services. Here are some of those cases how we faced and handled them.

CONCLUSION

Lockdown is inevitable in country like India where population is huge and controlling the pandemic would be very difficult with kind of healthcare facilities present in subcontinent. Lock down affected many sectors from industry to agriculture. Agricultural sector has faced crisis in terms of harvesting crops and facilities for selling them. Rural India were mostly affected due to lockdown and some of their desperate measures to sustain during this phase has caused some difficulties pertaining health care and above mentioned are few difficulties that were faced and handled during covid-19 lockdown.

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