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Learning To Operate With Another Virus! -Prospective Study of Orthopaedic Cases in a Tertiary Institution during Covid-19.

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I. Introduction:

▶ We all, with great enthusiasm and hope welcomed the year 2020,little did any one of us know what would unfold before us.

▶ With cases of COVID-19 slowly rising in India,Prime Minister Narendra Modi declared a nationwide lockdown on 24th March 2020 for 3 weeks.

▶ As the panic started,more speculations and predictions began and practically all systems went haywire.No one knew how to react!

▶ As an orthopaedic resident working in GGH,we discharged most of the post op patients and stopped all elective admissions.

SO WHAT ABOUT ORTHOPAEDICS?

▶ Traditional electives like arthroscopy are easy to decide but are all orthopaedic cases electives?

▶ Or only limb and life saving ones are emergencies?

A question with no so definite answer.

Here in our study,we have followed up cases which presented to us during the covid times to GGH casualty and have found interesting observations.

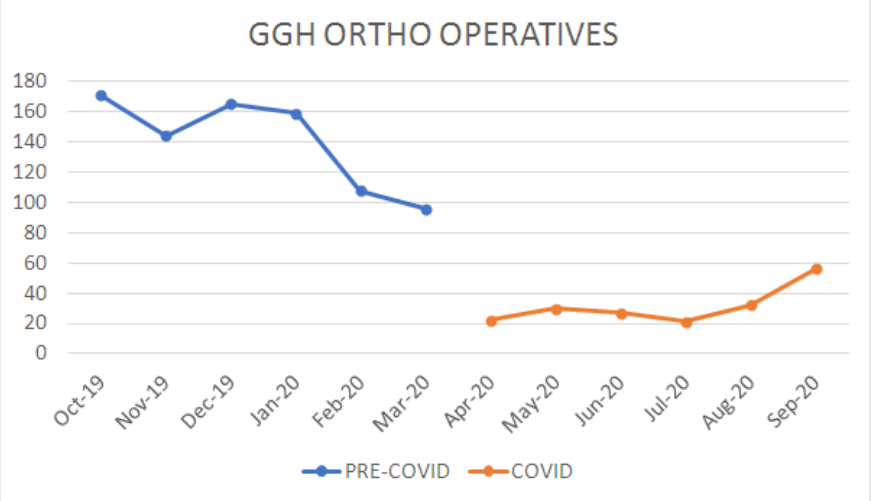
AIM:

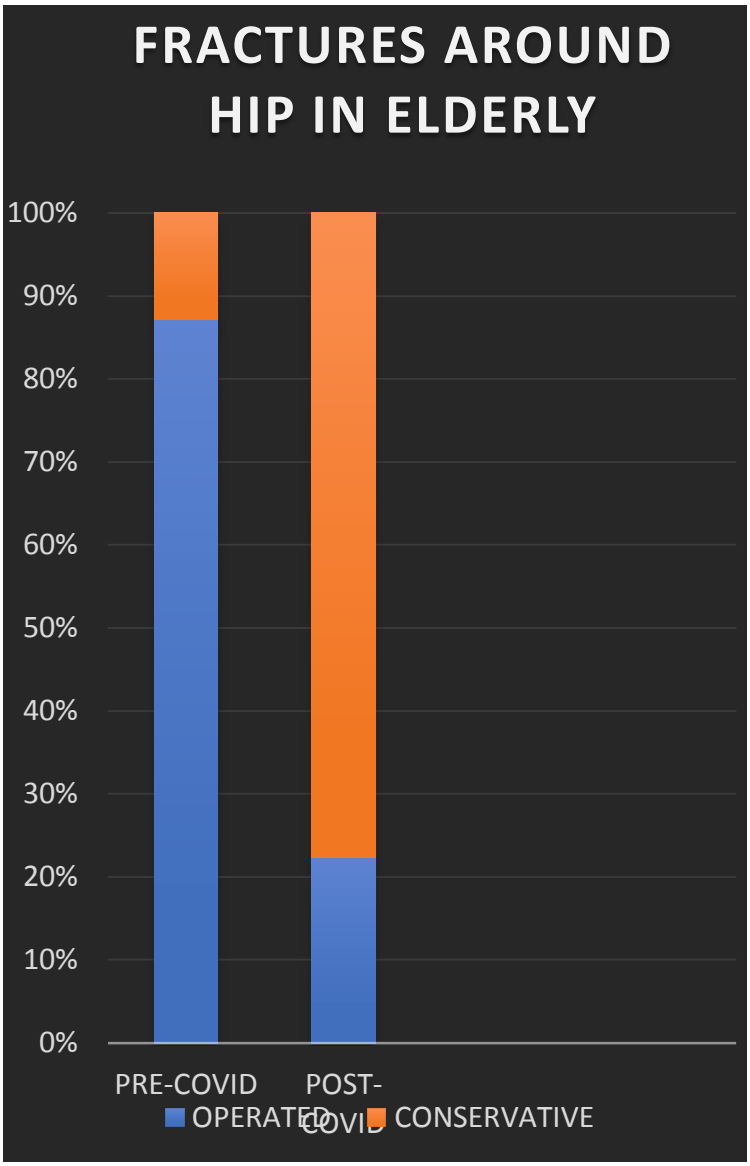
▶ To know the effect of covid-19 on orthopaedic patient management.

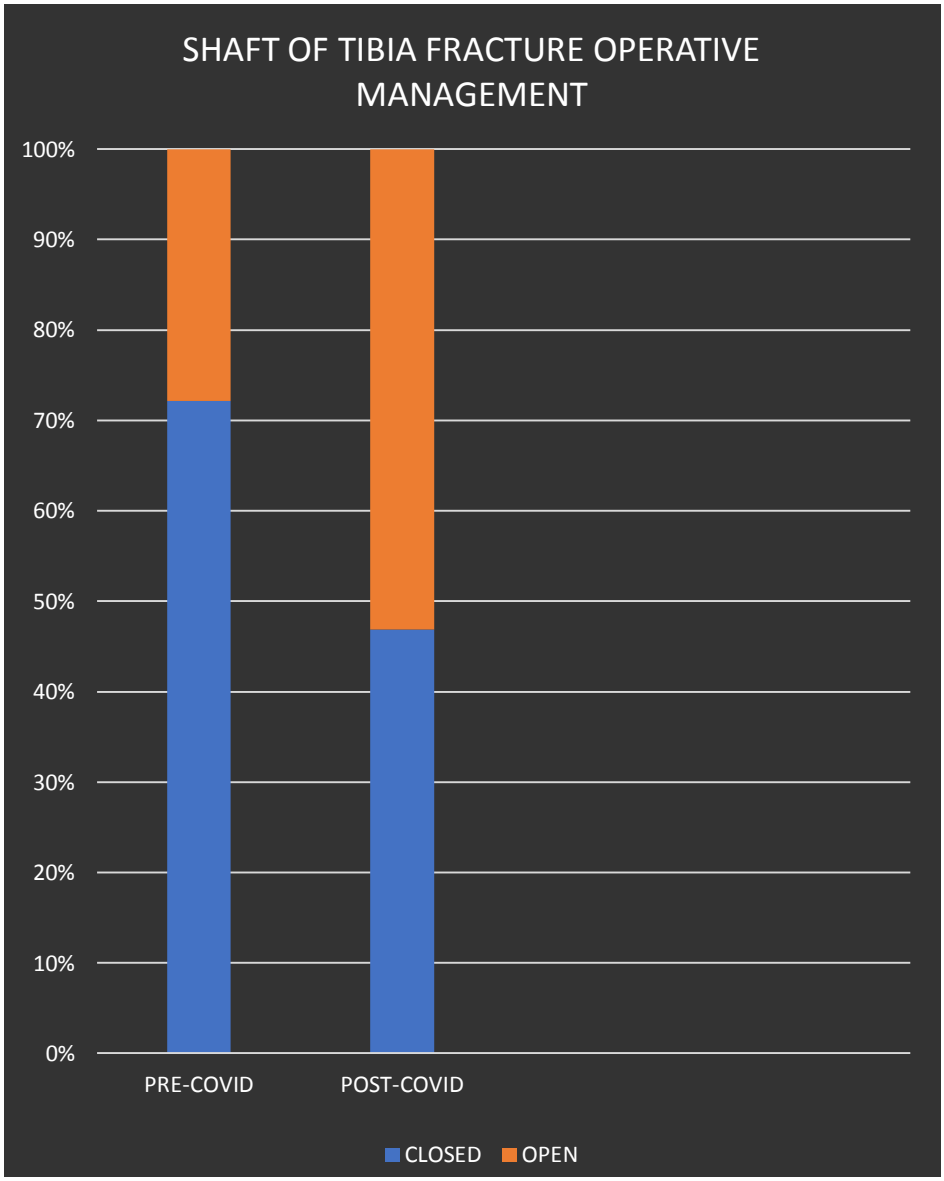
▶ To identify problems faced and scenarios encountered during covid from orthopaedic surgeon point of view.

II. Materials And Methods:

▶ In our hospital,from October 2019-March 2020 orthopaedic operatives were 843;six months post-covid onset (April 1-Sept 30) the number has reduced to 188-highest number noted in September due to relaxation of lockdown and a resumption of non-covid work.




FRACTURES AROUND HIP IN ELDERLY
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
PRE-COVID
POST-COVID
OPERATED
CONSERVATIVE



III. Observations And Results:

▶ **1.CASES PRESENTED LATE:**

Many orthopaedic trauma cases presented to us days and weeks after the injury.

Reasons being-

1. Lack of transport.
2. Fear and phobia about covid.
3. Referred from small villages and towns due to stoppage of operatives there.

▶ **2.MORE OPEN REDUCTIONS THAN CLOSED:**

Due to delay in presentation,many of the cases had to go for open reductions which resulted in more blood loss,increased hospital stay and more risk to covid transmission to and from the patient.

▶ **3.TYPE OF INJURIES:**

Interestingly during covid because of lockdown,we encountered very few RTA cases and most of the fracture cases were either due to ASSAULTS,TRIVIAL FALL in elderly or FALL FROM TREES.

So ulna fractures, intertrochanteric and intracapsular neck femur and fractures of calcaneum and spinal injuries topped the list!

➢ **4.PROLONGED WORKUP:**

Every case needed a covid report prior to surgery.In the initial days when the rapid kits weren't available,we had to wait for RT-PCR results which would come after 24 hrs,or consider the case as covid positive and then operate.

This increased the decision time and increased the workup needed to be done.

➢ **5.SCARCITY OF RESOURCES:**

At times,we had lack of adequate PPEs, N95 masks, gloves due to transport issues and overall burden on the machinery.This affected optimum patient care and necessitated as less hands as possible for surgery but in process increased time taken to do the same

▶ **6.RELUCTANCE FOR GA CASES:**

With the increased risk of exposure during intubation,the anaesthesia faculty were reluctant for GA cases and rightly so.

As a result of which paediatric cases were for conservative management,corrections for CTEV were postponed.

➢ **7.INCREASED COVID INCIDENCE IN CONSERVATIVELY MANAGED PATIENTS:**

In my casualty duties I saw 2 intertrochanteric patients,to whom I had discharged with conservative management by derotation boot,coming back to casualty within 1 month with covid

Possible reason:

-Old age

-Retention of secretions due to prolonged immbolisation

-Covid vectors being patient attenders

▶ **8.COVID HOSPITALS:**

GGH Guntur orthopaedic department was one of the few orthopaedic dept in the state to be functioning even in the peak of covid.Almost all the private hospitals and most of the Govt Hospitals were purely covid,so we got referred ortho cases from them.

We experienced shortage of manpower as many of our residents,assistant professors,staff were allotted covid ward duties and had to go quarantine post duty. This reduced the orthopaedic work done to considerable extent.

➢ **9.PHOBIA OF TRANSMISSION:**

During OT,there was a lot of panic and fear regarding use of Laminar operating room and use of cautery as it may spread transmission of covid by aerosols.

▶ **10.COVID POSITIVE COMPOUND FRACTURE CASES :**

This category of patients affected the most,they had to be operated in a separate OT room and even post ot,regular dressings had to be done

At times,OT,staff,anaesthesiologist and even equipment weren't available for the conduct of OT

▶ **11.WE BECOMING POSITIVE!**

One patient in one ward was sufficient to spread covid to interns,staff,PGs and faculty and to other patients of the ward.

This made it mandatory to fumigate wards and ots at regular intervals and covid screening prior to admission.

▶ **12.TEACHING HOSPITAL:**

There were very few cases admitted in wards,majorly acute compound trauma.

We felt the lacuna of case taking and examination.

Gatherings were prohibited which made classes taking difficult

▶ **13.HOW DO I GET IMPLANTS????**

Production stopped,even after it resumed no transport/couriers.

Affected supply of implants required

Vendors had to go to district borders at one point of time when colour coding of districts was done in Andhra Pradesh

▶ **16.ALWAYS EXPOSURE WAS FIRST!**

When a patient comes to casualty no one is aware about his covid status,including the patient himself

Many times he/she was diagnosed as positive later,by the time already the casualty premises,surrounding patients and attenders,interns and pgs are affected.

IV. Conclusion:

▶ Early operative management of the elderly and mobilisation to reduce their chances of acquiring COVID as well as of fresh trauma cases to minimise surgery time and thereby exposure.

▶ With a standard protocol followed in our setup,it is possible to redefine emergency case definitions as not only limb and life saving but also the ones giving early mobilisation to help prevent acquisition of COVID.

V. Discussion:

COVID-19 has affected all of our lives and being in 2021 now it is still a nuisance.

▶ Orthopaedic surgeries come in semi elective surgeries as there are very few limb or life saving onces.Majority of the fractures can be immobilised and managed conservatively.

▶ Our study suggests early operative management of cases like Intracapsular fracture neck femur could mobilise the patient and prevent increased retention of secretions and more vulnerability for covid.

▶ In our hospital,we follow the following protocol

1.Patient arrives in casualty
2.Rapid Covid test along with routine tests
Cat 1: Covid negative- Admit and shift to ward
Cat 2: Covid positive and non emergency- Shift to covid ward and review after 2 weeks with negative tests
Cat 3:Covid positive emergency- Shift to designated Covid OT with limited use of cautery,laminar ot rooms and electric drills and power reaming.

Take home message:

▶ COVID is here to stay,we have faced it so far-we can tackle it again if the cases rise….cant run anymore!

▶ With adequate precautions,it is necessary to operate and mobilise the elderly who arrive with fractures of the lowerlimb.

▶ Orthopaedic trauma is not elective,we can test the patient-operate if negative,delay till recovery if covid positive.

▶ Covid positive compound cases requiring surgical intervention should have separate provisions,equipment and team to deal the case.

▶ A rapid covid screening test is a must especially in scenarios like casualty where the hospital personnel and other patients are exposed at once.

If the covid status of the patient is known before itself,patient can be dealt with added precautionary measures

▶ Continue measures like regular fumigation in hospitals,use of masks,social distancing and sanitization of hands

▶ Promote vaccination,as that is the way forward!

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