Determining the Impact of Coronavirus (COVID 19) on General Surgical Practice in India

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Authors' contributions
This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

ABSTRACT

Background: The increased risk of contracting Covid 19 has proved to be a major professional hazard for surgeons working through the coronavirus pandemic that started in 2019, the aim of this study is to examine the effect of covid 19 on the general surgical practice in India. After the high number of worldwide cases, Covid 19 was officially proclaimed to be pandemic on March 11, 2020. The Indian government announced the implementation of a 3 week long nationwide lockdown on March 24 in an effort to curb the escalation of the Covid 19 crisis, as the number of people who tested positive reached 563.

Methodology: A list was obtained of members of the Indian Association of Gastrointestinal endosurgeons (IAGES) and email id was collected. Pre formed semi structured questionnaire was sent to email id of all 6000 doctors. Out of which One hundred and forty surgeons had responded. The survey involved questions about the practice of surgery prior to COVID19 and implications of COVID 19 in the current practice and financial of surgery. The answers were compiled and analyzed statistically.

Results: The larger part (40%) had practiced for over 20 years; 36.4% worked in various private medical centres Of those that took the survey it was found that 40 % had a largely laparoscopic practice wherein they saw approximately an average of 24 patients a day and 40 cases/month as planned surgical cases. After the blockade, step by step technique. Hydroxychloroquine (HCQ)
chemoprophylaxis was represented by 54% of subject matter experts. Individual guarded equipment (PPE) was used by 58.2% in all cases, 72.3% communicated that there was insufficient course for future cautious work on concerning prosperity. 53% of experts saw a reduction of more than 75% in their month to month pay, while 21% saw an abatement of 50-75%. A third (33%) of respondents own a crisis facility and anticipate that a month should month money related charge of 2.30 million rupees.

**Conclusion:** Covid 19 has radically lessened the load of the current surgical practice and elective surgical treatments. This study warrants the need for the establishment of clear guidelines to ensure the safety of specialists in the conduction of surgical practices, and to set in place a plan to overcome the financial liability brought about by COVID 19.

**Keywords:** COVID-19; hydroxychloroquine (HCQ); chemoprophylaxis.

### 1. INTRODUCTION

Corona virus was pronounced a General Wellbeing Crisis of Global Concern (USPPI) by the World Health Organization (WHO) on January 30, 2020 [1]. The first week of March saw a shockingly large number of recorded cases of COVID 19 worldwide after which Coronavirus was pronounced a pandemic on March 11, 2020 [2]. The Indian government declared nationwide public restrictions on movement for quite some time from 12 PM on March 24 to slow the spread of Coronavirus, as the quantity of individuals testing positive in the nation came to 563 [3]. In any case, this restriction was extended until May 3, 2020. A month after these restrictions, short term facilities and elective medical procedures would probably have been grossly reduced. Most clinics and medical centres have been reserved for distributing masks and individual Personal protective equipment (PPE), limiting staff development and postponement to elective procedures.

### 1.1 Aim

This review intends to explore the effect of Coronavirus on the broad surgical practice carried out in India also, the future ramifications of the pandemic.

### 2. METHODS

Cross section electronic interview based study was conducted in the time frame between march to may 2021. This examination was directed in a tertiary care emergency clinic and surgical hospitals. List was obtained of Gastro intestinal surgeons Indian Association of Gastrointestinal Specialists (IAGES) with list email was obtained of 6000 gastro intestinal surgeons who are doing everyday surgical procedure and Laproscopy. The overview poll was planned and electronically conveyed after India entered a cross country lockdown. Poll comprised of 21 inquiries with five socio-segment questions, inquiries on the quantity of procedures and efforts on protection.

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**Fig. 1. Type of surgical practice (%)**

43\% Laproscopic, 40\% Open, 17\% Equal Proportion.
and the monetary effect of the current time frame. Out of 6000 surgeons one hundred and forty (140) surgeons had responded. All collected data was entered in to excel version 2016 and statistical analysis was done mainly by applying chi-square test.

3. RESULTS

140 specialists from the nation over reacted to the study, of which just 8.6% were ladies. Among the respondents, 40% of specialists had over 20 years of training, 36.4% for 10 to 20 years and 23.2% 4 to 10 years subsequent to getting their degree certificate. About, 38% worked in a private practice, 28% were full time in an emergency clinic and 14% were full time in open medical clinics.

3.1 Prior to Lockdown

Of the respondents, 40% had essentially a laparoscopic practice and 43% had an equivalent extent of laparoscopic and open a medical procedure. Specialists detailed a normal short term visit of 24 patients/day and elective medical procedures 40 cases/month before regulation.

3.2 Post-Lockdown

Since the beginning of lockdown, 35.8% said they had totally halted short term practice, 64.2% Specialists have seen their practices decline and half said they have begun on the web discussions. Of those that have continued in person visits, the normal day to day patient load has diminished to 5 patients each day.

All elective medical procedures were halted by 92.8%, while 5.4% had decreased elective medical procedures. No elective methods were performed by 75%, while 18% performed under 6 medical procedures during the lockdown time frame. No crisis medical procedure was performed by 11% of specialists, and 40% had decreased emergency procedures whenever the situation allows. The normal number of elective also, emergent medical procedures performed during the lockdown was just 2 or 6, individually. The decrease in OPD, elective and crisis medical procedure was measurably critical (p <0.05).

3.3 Wellbeing Practices

Hydroxychloroquine (HCQ) was taken by 54% of specialists for chemoprophylaxis. 92% of specialists accepted that laparoscopic medical procedure and the utilization of energy sources expanded the danger of spreading the infection by spray. For safe careful practice, 58.2% of specialists said they would utilize PPE at any rate, 36.8% would incline toward open a medical procedure, and 34% would utilize channels for desufflation. More proof was looked for by 72.3% of specialists to comprehend future wellbeing rehearse.

Number of patients in Pre and Post lock down phazes

![Fig. 2. Number of patients in pre and post lockdown phazes](image-url)
About 51% of specialists said the rapid Coronavirus antigen test had a false negative rate of up to 32%, while 42.8% said high false negative antibody levels are seen during the first seven days of contamination. When requested to choose the main three regions where satisfactory data is missing on Coronavirus for specialists, most specialists chose the eventual fate of a medical procedure in the Coronavirus period (76.6%), the laparoscopic security (70.1%) and workforce wellbeing (58.8%). For ii as a medium, 6.3% utilized TV, while 14.1% utilized direction given on government/public sources.

3.4 Monetary Effect

A drop of more than 75% in their month to month pay was capable by 53% of specialists, while 21% encountered a decrease of 50 to 75%. Subgroup examination uncovered that specialists working in private medical clinics had an altogether (p = 0.000) more noteworthy decrease in pay than specialists in open organizations. A third (33%) of those overviewed claimed an emergency clinic also, expected a month to month monetary responsibility of Rs 2.30 million.

4. DISCUSSION

Coronavirus has created a critical change in the practice of surgery and medicine worldwide. Our exploration showed that the professional approach of most specialists in India was altogether impacted by the Coronavirus 19 pandemic. On April 25, 2020 at 9 am, more than 24,000 cases of covid 19 were affirmed as certain regions in India [4].

Short term cases and elective medical procedures dipped from more than 25 cases/day and 38 medical procedures/month to very nearly zero cases during the time of the mandated lockdown. Spinelli [5] detailed that most short term treatments have been suspended in Italy and planned patients are brought in ahead of time, with the prerequisite that the patient had no indications of COVID 19 in the past fourteen days (eg fever or hack), or direct contact with Coronavirus - positive persons. In these cases, the procedure were rescheduled and the visit was delayed. An overview of the practice of ophthalmology in India by Nair et al. [6] showed that 74% of practicing ophthalmologists in India were in complete bind. In spite of the fact that doctors themselves might be accessible, the inaccessibility of the board, organization, nursing and other help groups can present a technical and functional difficulties that hinder the seamless practice of procedures during the Coronavirus pandemic. Specialists additionally run a twofold chance of exposure to the virus in their training, short term treatment plans and also, the operating room. Our overview showed that practically 55% of specialists took HCQ for chemoprophylaxis. A deliberate survey by Shah et al. [7] showed no strong proof of the effectiveness of HCQ as a prophylactic treatment against Coronavirus. However, the Public
Coronavirus Team framed by the Indian council of medical research (ICMR) on March 22, 2020, suggested HCQ for prophylactic use in asymptomatic Health care laborers (HCWs) engaged with patient contact, either suspected or affirmed cases of Coronavirus. When the administration of HCQ is considered for a Coronavirus patient or suspect, endeavors ought to be made to establish for those at high risk to have a benchmark ECG recording [8]. When the pandemic is taken care of, the degree of safety measures to be taken by working room staff is unclear as of now. Most specialists expressed the fate of careful practice in the Coronavirus period (76%), laparoscopic security (68%), what's more, staff security (58%). This forces the requirement for Indian and worldwide guidelines to combat these issues. Stahel [9] gave calculations based on elective surgical procedures and anticipated the suitable perioperative utilization of basic facilities, including of intraoperative/postoperative blood transfusion s, assessed length of clinic stay postoperative and anticipated necessities. For delayed ventilation and the requirement for postoperative admission to escalated care. Before the Coronavirus lockdown in India, 41% of specialists in our review fundamentally performed laparoscopy. As indicated by a concentrate by Tuech et al. [10], caution ought to be practiced when performing laparoscopy in view of the danger of spray discharge and ensuing exposure of working room staff. The principle hazard emerges from the conceivable presence of microbes in the peritoneal cavity. The particles released in the working room during a medical procedure through the ports or after the activity (desufflation of the mid-region) can contaminate the staff, hardware and surfaces of the room through airborne particles [10]. In our study, 58.2% said they would utilize PPE at any rate, 36.8% would favor an open medical procedure, and 34% would utilize channels for desufflation, while 72.3% said more proof was required. Regardless of rules from different Indian and worldwide organizations, there is as yet incredible ambiguity concerning which safe practices are too embraced. Our review saw as that 78% of specialists utilized the Web as their favored source of data about Coronavirus. At present, the wide assortment of data accessible on the web, including unsubstantiated malignant data, can spread rapidly and can misdirect health care workers (HCWs). Global authorities and researchers have cautioned that disinformation about Coronavirus is a genuine concern for causing xenophobia all throughout the planet. One more worry over careful practice is the financial effect of the pandemic. Our overview detailed that 53% of specialists encountered a decrease of 75% or more in their pay, and the length of this situation is unsure.

4.1 Constraint

One constraint of the review was that Coronavirus impacted various urban areas and states in India to varying degrees; due to these fluctuations the respondents' insights will be restricted.
5. CONCLUSION

Our overview reveals the requirement of more data on the eventual fate of careful surgical practices, to make medical practice safe in the midst of the pandemic. The current lockdown significantly affects routine careful practice and will require dedicated endeavors to get back to "another typical" in the future of laparoscopic medical procedure.

CONSENT

As per international standard or university standard, Participants’ written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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