

Fear of getting Covid-19: A challenge to elective surgical practice and ways to overcome

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Abstract

Objective: To evaluate patient experience (fear of getting Covid-19) from elective surgery and challenges of elective surgical practice and ways to overcome during this pandemic era.

Materials & Methods: This study was an observational cross-sectional survey and it has been conducted in the General Surgery Department of Dr. Akbar Niazi Teaching Hospital, Islamabad, from May to August 2021 after approval by the Institutional Review Board (IRB). Fear of Covid-19 infection was measured through the "fear of Covid-19 scale" by Ahorsu et al and analyzed. All findings were entered in a structured Proforma. Data was entered in SPSS version 26 and analyzed. Effect modifier chi-square was used to find out the patient's dropout due to getting Covid-19 infection from surgery.

Results: A total of 200 patients were included; 62% of patients were male and 38% were females. The mean age of the patients was 38.64±12.08 years. The statistical analysis showed that there was a very significant association between the FCV-19 scale and getting Covid-19 infection from elective surgeries ($p \leq 0.05$). When stratified the FCV-19 scale with the education status of all patients there was a very significant association between them ($p=0.001$). In the patient's observations regarding the FCV-19 questionnaire, most of the patients disagreed (46.3%) with getting Covid-19 infection from their elective surgeries or any fear of Covid-19 infection.

Conclusion: Fear of getting Covid-19 is still present in some of the patients who visit hospitals for elective surgeries. Discussing the various steps taken by the institute to improve patient safety and minimize the risk of Covid-19, greatly enhanced their confidence in elective surgery and improved satisfaction level.

Keywords: Covid-19; Fear; Fear of Covid-19 Scale; Elective Surgical Procedures.

Introduction

The European Centre for Disease Prevention and Control (ECDC) reported Covid-19 cases on weekly basis globally. At week 2021-33, 212 million cases of Covid-19 were reported globally. As per the definition of applied cases and testing approaches in the affected countries included 4.4 million death rates.¹ According to the weekly ECDC report, 1.1 million Covid-19 cases came into the front and almost 25 thousand deaths were reported in Pakistan.² Covid-19 has features of fast spreading and is also a most important cause of morbidities and an extremely high rate of death in patients.³ In order to fight this panic scenario, regulatory bodies all over the world have initiated to respond to the contemporary troublesome situation and started different strategies in order to prevent pandemics and introduced extraordinary ways such as self-quarantine, isolation, and social distancing.⁴ Resultantly, the pandemic of Covid-19 had adverse effects in every field of life whether it is economic or psychological and it not only changed the world dynamics at the regional level but it entirely affected all over the world.

Eventually, many people have started to be worried about their jobs and not only in developing countries like poor and middle-income countries but also in developed or high-income countries. Therefore, every individual all over the world is affected psychologically because of the severe side effects and aggressive nature of Covid-19. Everyone was worried due to panic and fear of this virus.⁵

A malicious emotional state which is provoked by a sense of danger is called "Fear".⁶ This kind of fear is felt by common people or the public in alarming situations of disease outbreaks and epidemics. In the Covid-19 era, some people committed suicide because they thought they could get this contagious disease but when labs were done, they had no Covid-19 virus in their reports.^{7,8} Most research papers explained the associated effect of fear with different kinds of surgeries because it has an adverse effect on the physical and mental health of an individual.⁹

Even though, hospital measures in order to unreliable reserve recourses increased Covid-19 infections. As a result of this, patients piled up in the hospital and waited for their effective management.¹⁰ Another form of fear reported is the contamination of open abdominal surgeries or endoscopy. They may be transferred through gas and smoke that are generally used in laparoscopic procedures. But literature did not provide any evidence regarding the contagious nature

of the virus in surgical procedures.¹¹ This induced urge in academic institutions and surgeons to the side of safety and it was tagged that all types of surgery methods, particular methods including endoscopy, should be prohibited to avoid needless exposure to pandemic Covid-19 and it was suggested to keep away any type of surgical procedure in all diagnosed cases or those who were not tested except their PCR showed negative results and finally, they become symptomless.^{12,13}

Sources of Covid-19 are many such as droplet and aerosol contamination and on other hand other risks like fluid contamination of amniotic fluid, peritoneal fluid, faces, and urine. In the initial phase of a disease outbreak, the method that was introduced was known as the safety-first method but due to insufficient evidence of contamination danger among patients. And they are undergone many times laparoscopic surgical procedures by the surgeons.¹⁴ In addition to this, no study explained and reported the fear of Covid-19 for optional surgeries for the patients. Therefore, the present study was designed to evaluate the fear of getting Covid-19 from elective surgeries in the patients and challenges to elective surgery practice, and how to overcome this situation. Overall, this is an ongoing challenge to elective surgery. In our surgical institute, we continued to deliver elective surgical services during this pandemic. We took very specific measures as per guidelines, to overcome patients' fear of Covid-19 and to improve our service delivery and safety.

Materials and Methods

This observational cross-sectional study was approved by the Institutional Review Board of Dr. Akbar Niazi Teaching Hospital (ANTH) Islamabad, Pakistan (IRB No. 1.60.IMDC-2021) and performed in accordance with the principles of the Declaration of Helsinki (the main principles of this declaration were; informed written consent, patient respect, and recognition of vulnerable patients). This study was conducted at the department of Surgery of ANTH hospital from May 2021 to August 2021. Written informed consent was taken from all enrolled patients. A total of 200 patients presenting for surgeries were enrolled for this study by random selection. Patients with negative polymerase chain reaction (PCR) test and vaccination status were included in the study by non-probability consecutive sampling while patients without Covid-19 vaccine and ≤ 18 years of age were excluded. The medical record of all enrolled patients was reviewed

and clinical features along with basic demographics, and laboratory findings (such as lab reports, and X-rays chest) were noted.

A structured proforma was used to enter all findings. Fear of Covid-19 infection was measured through the "fear of Covid-19 scale (FCV-19)". The validity and reliability of this scale were established by Ahorsu et al.¹⁵ This scale had 7 questions and patients indicated their level of agreement with the statements using a five-item Likert type scale. Answers included "strongly disagree," "disagree," "neutral" "agree" and "strongly agree". The minimum score possible for each question was 1, and the maximum was 5. We divided this scale into three possible categories; mild (1-10 points), moderate (11-22 points), and severe (23-35 points). The original classification of FCV-19 was based on the Likert type (discussed above). The main outcome of this study was to find out the fear of getting Covid-19 infection in patients who visit the hospital for elective surgeries. Demographic features like age, gender, hypertension, diabetes, and socioeconomic status were also noted. For statistical analysis, the data was entered in SPSS version 26. Means and standard deviations were calculated for quantitative variables like age. Frequencies were calculated for gender, comorbidities, and socioeconomic status (lower/upper). Effect modifier chi-square test with 95% confidence intervals was used between frequency of gender, patient education, socioeconomic status, and patients' dropout due to severity of fear of Covid-19. A p-value ≤ 0.05 was considered significant.

Results

Total 200 patients presenting for elective surgeries were recruited for the study; 62.0% (n=124) were male patients and 38.0% (n=76) were females. Also, the

mean age of the patients was 38.64 ± 12.08 years (range; 18-63 years). Comorbidities like hypertension, diabetes mellitus, and ischemic heart disease were studied. All other demographic characteristics of these patients were recorded (Table 1).

The percentage of the FCV-19 scale of each question was studied. There were 46.3% of patients who disagreed about fear of Covid-19, 26.7% of patients were neutral and 27% of patients agreed about fear of Covid-19 (Table 2). The mean score of the FCV-19 scale was 18.22 ± 5.19 . The total score on this scale was 35. There were 32.5% of patients with mild fear, 60% with moderate fear, and 7.5% were in severe fear of Covid-19. The actual dropout of patients from elective surgery due to fear of Covid-19, getting an infection from surgery, or staying in hospital was 7.5% (Table 3). The frequency association between FCV-19 scale severity and educational status, occupation, and socioeconomic status was studied (Table 4).

Table 1: Demographic features of all patients, n=200

		Frequency	Percentage
Education status	Uneducated	64	32.0
	Educated	136	68.0
Comorbidities	None	124	62.0
	Hypertension	40	20.0
	Diabetes mellitus	4	2.0
	Multiples (HTN/DM/ ISH)	32	16.0
Marital status	Unmarried/single	48	24.0
	Married	152	76.0
Occupation	None	72	36.0
	Govt. job	24	12.0
	Private job	80	40.0
	Business	24	12.0
Socioeconomic status	Lower	160	80.0
	Upper	40	20.0

Table 2: Statistics of FCV-19 scale

Fear of Covid-19 items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1 I am most afraid of Corona	10	12	24.5	51.5	2
2 It makes me uncomfortable to think about Corona	10	14	40.5	31.5	4
3 My hands become clammy when I think about Corona	10	74	16	-	-
4 I am afraid of losing my life because of Corona	10	78	10	2	-
5 When I watch news and stories about Corona on social media, I become nervous or anxious.	12	6	20	60	2
6 I cannot sleep because I'm worried about getting Corona.	14	40	42	4	-
7 My heart races or palpitates when I think about getting Corona.	14	20	34	32	-

Table 3: Statistics of FCV-19 scale severity, n=200

<i>Fear of Covid-19</i>	<i>Frequency</i>	<i>Percentage</i>
Mild	65	32.5
Moderate	120	60.0
Severe	15	7.5

The patient’s drop out was measured through the severity of the FCV-19 scale.

Table 4: Association between FCV-19 scale severity with education status, occupation, and socioeconomic status, n=200

		FCV-19 scale severity index			Total	Chi-square value	p-value
		Mild	Moderate	Severe			
Education status	Uneducated	17	36	11	64	13.018	.001
	Educated	48	84	4	136		
	Total	65	120	15	200		
Occupation	None	22	40	10	72	13.513	.036
	Govt. job	8	16	0	24		
	Private job	31	44	5	80		
	Business	4	20	0	24		
	Total	65	120	15	200		
Socioeconomic status	Lower	28	120	12	160	85.385	.0001
	Upper	37	0	3	40		
	Total	65	120	15	200		

Discussion

After analyzing the data obtained from 200 patients coming for elective surgeries, we found that 7.5% of patients drop out from elective surgeries due to fear of Covid-19 infection. Statistical analysis revealed a significant association between Covid-19 infection with fear of getting the disease ($p \leq 0.05$). It was also observed when stratified FCV-19 scale with the education status of all patients there was a very significant association between them ($p=0.001$). Our results also demonstrated the patients’ observations regarding the FCV-19 questionnaire, most of the patients disagreed with getting Covid-19 infection during their elective surgeries or any fear of Covid-19 infection.

Lei S, et al conducted research and described the outcomes of operative patients with Covid-19 infection. The research appeared for giving confirmation regarding fear of surgery or infection development among participants who had surgery and it might be a life-threatening condition in victims.

Challenges:

<u>Strength</u>	<u>Weakness</u>
<ul style="list-style-type: none"> ➤ Low rates of visits ➤ Immediate treatment, reduce healthcare exposure ➤ Telehealth, follow-up care 	<ul style="list-style-type: none"> ➤ Treatment outcomes inferior to surgery ➤ The disease may be associated with an increased hospital visit rate ➤ Lack of integrated medical records

In addition to this, patients who had undergone surgical procedures reported from different four hospitals, and during to outbreak of Covid-19 in Wuhan, they were in the initial phase. The most horrible condition regarding this fear of surgical procedures is that they were undergone surgery in an active cluster with no precautionary measures. They compared the disease severity of ICU-required patients 15 (44.1%) and non-ICU required patients 19 (55.9%).¹⁶ Present study has explained the fear of Covid-19 from surgical procedures and it was a single-centered study. Some simple steps are commonly taken like wearing a mask and gloves, screening methods before admission to the hospital, and 14 days period of isolation would be sufficient for patient safety. Yang W, et al study results showed that in the patient with symptoms, the sensitivity and specificity of PCR was 98% and 71% respectively.¹⁷ Recently, a few research studies are on hand among symptomless patients. In a recent study, patients without symptoms were assessed through PCR and any of them was not found positive.¹⁸

Opportunities	Threats
<ul style="list-style-type: none"> ➤ Patients’ education/symptoms, shared decision-making tools, treatment protocol ➤ Define indications ➤ Secondary prevention, follow-up care 	<ul style="list-style-type: none"> ➤ Quality of life, morbidity ➤ Restriction on surgical care ➤ Increased risk of complications

Patients in our setting desired to limit their exposure to health care facilities, which had an impact on surgical decision-making. We have observed lower rates of emergency department visits, therefore decreasing hospital resource consumption, viral particle aerosolization, and health care worker exposure. We had an opportunity to develop shared decision-making tools that empower patients to select the right treatment for them.

We must also recognize that fear may drive patients to present at a later stage for emergent issues. Conversely, patients suitable for surgical treatment may request emergent primary treatment to avoid the risk of another hospital encounter. This may be a reasonable consideration if resources allow.

Ways of Overcoming and Future Planning:

Steps were taken by Dr. Akbar Niazi Teaching Hospital for patient safety during elective surgery

Pre-operatively:

- 1- Mandatory negative Covid PCR test 72 hrs before surgery
- 2- Telephonic interviews to evaluate Covid symptoms before admission
- 3- Specific Covid free elective surgery wards
- 4- Small number of cases per theatre

Intra-operatively:

- 1- Designated Covid free elective operating theatres.
- 2- All staff tested for symptoms/temperature change
- 3- All staff wearing PPE
- 4- Presence of Consultant Surgeon in all cases
- 5- Single-use items where ever possible
- 6- Deep cleaning of theatres after cases

Post-operatively:

- 1- Minimised visitors
- 2- Early discharge policy
- 3- Minimised outpatient follow-up visits

During the early phase of the disease outbreak in mid-March 2020, the federal and provincial governments of Pakistan initiated sanctions on activities of daily activities in the social and economic domain. All precautionary measures have been taken for decreasing the Covid-19 and eventually led to economic doldrums. Since March 2020, patients diagnosed with coronavirus needed hospitalization and emergency care treatment and it affected

government and private hospitalization. Hospital capacity was not enough for patients with Covid-19 because of a shortage of space and personal protective equipment (PPE). The second reason is that because of the increased number of cases other medical procedures like elective surgeries and medical procedures other Covid led to slow down overall medical operations. Simultaneously, patients delayed medical visits due to fear of coronavirus leading to deferred diagnosis, surgical mechanisms, and follow-up visits. The third reason, the worst thing about this virus is that it affected the government and private hospital setups and rise in trends of telemedicine. Telemedicine compensated to some extent but not fully as physical practice. Therefore, all patients and healthcare providers did not have much technology familiar.

We have the following limitations in our study. This is a single-center study and done without any control group. Also, the number of patients taking part in the study was relatively not huge. We also excluded patients presenting in emergency situations requiring urgent operations. It does not determine the surgical fear with the Covid-19 fear. Also, we have not addressed the financial aspects of the patients, with regards to postponing the procedures. So, in our study, the dropout or deferred surgical procedures are only because of Covid-19 pandemic infection. So, based on our findings, we suggest that more research is required on this topic in comparison between surgery fear and Covid-19 apprehension. We also recommend that all the surgical sub & super specialties be taken on board, to have the holistic approach, as well as to accomplish more precise data.

Conclusion

This study concluded that there is a significant association of severity of disease with fear of Covid-19 infection from elective surgery. Fear of getting Covid-19 is still present in some of the patients who visit hospitals for elective surgeries. Discussing the various steps taken by the institute to improve patient safety and minimize the risk of Covid-19, greatly enhanced their confidence in elective surgery and improved satisfaction level. Following the SOPs (e.g., maintaining social distance, hand hygiene, and use of

masks) is still the most important way to prevent Covid-19 infection regardless of the presence of risk and facilitating factors.

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