

Plastic surgery during COVID-19 lockdown in Nigeria: any need for postponement of elective surgeries?

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Abstract

The COVID-19 Pandemic is the most recent and ongoing pandemic with the most devastating consequences economically, politically, academically and socially due to the high fluidity of human movement in the 21st century. COVID-19 means coronavirus disease 2019 first detected in Wuhan, China in November 2019. It causes a severe form of acute respiratory distress syndrome. The scare of the disease made most countries shut down practically all social, academic, economic and political activities including health services except emergencies and those related to COVID-19. However, the plastic surgery unit of the Irrua Specialist Teaching Hospital (ISTH) operates on patients who came during the pandemic for surgical services after the COVID-19 polymerase chain reaction test has been done. All patients who had negative polymerase chain reaction tests and those who had negative tests following treatment for COVID-19 had their surgery. Methodology and method: This is a retrospective study of all the patients who had surgeries in the Plastic Surgery unit, Department of Surgery of IST, Irrua done between April to October 2020. ISTH has the Institute of Lassa Fever Research, a Centre of excellence for the diagnosis and treatment of Viral Hemorrhagic Fever. The Hospital is one of the first three (3) centres accredited by the Nigeria Centre for Disease Control (NCDC) for the diagnosis of COVID-19 in February 2020. The data were retrieved from the Operation Diary and the patient's case notes. RESULTS: A total of 232 patients were booked for surgery by the Plastic Surgery Unit during the period under consideration. All the patients were screened for COVID-19, but only 17(7.3%) patients had positive tests (14 were asymptomatic while the remaining were symptomatic) for the coronavirus. Surgeries were performed on 228 patients including 13 who were initially positive for the virus. These positive patients had their surgeries after appropriate treatment, except four patients who did not return for their surgeries. Most of the patients had elective surgeries (92.7%). The majority of the patients were in the first six decades of life, with those in the third, fourth- and fifth decades accounting for 60.4%. Conclusion: In the Plastic Surgery unit, only 6.25% were diagnosed with COVID-19 among the patients who had elective surgeries. This findings suggest that prompt and reliable diagnostic tests. However, surgeons, anesthesiologists and peri-operative nurses should adhere strictly to universal precautions. More so the end to the pandemic is not in sight.

Keywords: Plastic surgery, surgeries, COVID-19, pandemics, lockdown.

Introduction

COVID-19 is the coronavirus disease discovered in Wuhan City, China towards the end of 2019 (November) defined as an illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is an airborne/droplet disease-causing acute respiratory

distress syndrome (ARDS) caused by other coronaviruses like Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS). This was found to cause a more severe respiratory disease with attendant high mortality. On January 30, 2020, the WHO declared the COVID-19 outbreak a global health emergency and by March 11, 2020, it was declared a global pandemic. COVID-19 affect different people in different ways. Most infected people will develop mild to moderate illness and recover without

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hospitalisation. The most challenging part of the disease is the issue of the asymptomatic carriers. This made the control of the spread of the disease very cumbersome. Greater than 75% of infected persons will be asymptomatic until they completely recover from the virus while they actively shed it as carriers. This issue of the asymptomatic carriers led most nations to bound air travel and subsequently lockdown the whole economic, academic, religious and social activities, leading to restriction of movement, social and physical distancing, wearing of face masks by everyone in public places and the use of personal protecting equipment by the frontline health workers who at risk of contamination and infection. Most health institutions followed the guidelines that all elective procedures should be postponed and that non-essential health workers who can work from home should stay home. Hospitals were infected between the time of negative screening and the time of operation, with respect to both patients, anaesthesiologists and surgeons. To operate some elective and all emergencies, COVID-19 screening tests were done for all patients before surgery. The negative screening test result was required not later than 72 hours before elective surgery, while the test samples were taken before emergency surgeries, the results were not required for surgery. If the result is positive, the patient is moved to the isolation ward and commenced on treatment.

Methodology and Methods

This was a retrospective study of all patients who had surgery in the Plastic Surgery Unit of the Department of Surgery, Irrua Specialist Teaching Hospital (ISTH), Irrua Edo State Nigeria. ISTH is the Centre of excellence for the diagnosis and treatment of Viral Haemorrhagic Fever. The Institute of Viral Haemorrhagic Fever and Emergent Pathogens (IVEP) is also located within the premises of the Hospital. It is the only tertiary health institution in the Edo Central and North Senatorial area of the Edo State. It was one of the first 3 centres accredited for the diagnosis of COVID-19 in Nigeria. The institution reduced its services to only emergence in compliance with the COVID-19 guidelines of the Nigeria Centre for Disease Control (NCDC). This led to the shutdown of all services except the essential and emergency services in the nation. The data were obtained from the operation records between April 2020 to March 2021, during the period of the national

lockdown due to COVID-19. The data were extracted and subsequently analyzed.

Results

A total of 232 patients were booked for surgery by the Plastic Surgery Unit during the period under review. All the patients were screened for COVID-19, of which only 17(7.3%) patients had positive tests for the coronavirus. Among the positive, 14 were asymptomatic while 3 were symptomatic. All the booked patients had their surgeries as appropriate except four patients of the positive cases, who did not return following their stay in the isolation ward. All the symptomatic cases were isolated and treated in the isolation ward, thereafter had their surgeries. The number of procedures on a monthly basis is represented in Fig. 1.

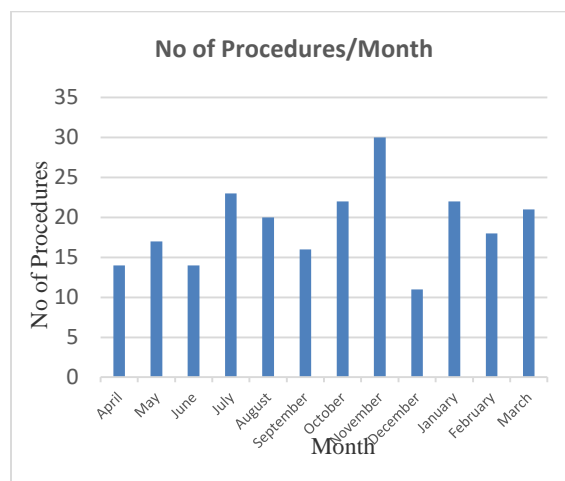


Fig. 1: The no of surgical procedures in the Plastic Surgery Unit, Irrua Specialist Teaching Hospital from April 2020 to March 2021.

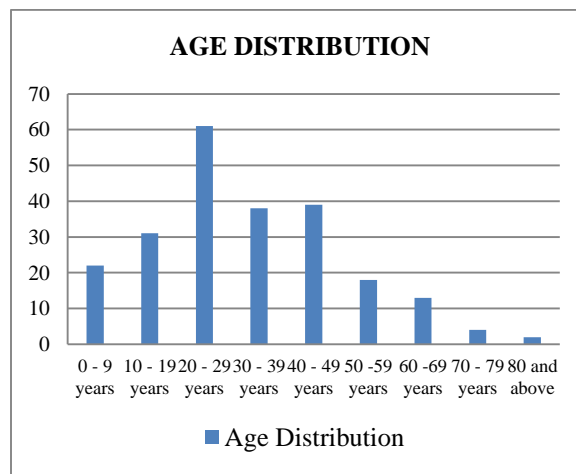


Fig. 2: The age distribution

The patients were 137 males and 91 females with male to female ratio of 1.5: 1. The majority of the patients (138) are young adults in the third, fourth and fifth decades of life (Fig.2). There were only 6 patients above seventh decade of life accounting for 2.6%.

Emergency cases were 24 (10.5%), while the rest had elective surgeries. The elective minors were 170 (75%) while the elective major cases were 34(15%). (Figure 3).

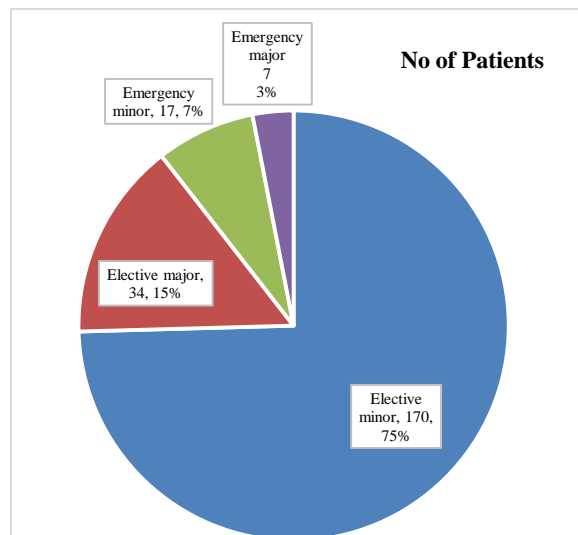


Fig. 4: Types of surgeries performed in the Plastic Surgery Unit, Irrua Specialist Teaching Hospital from April 2020 to March 2021.

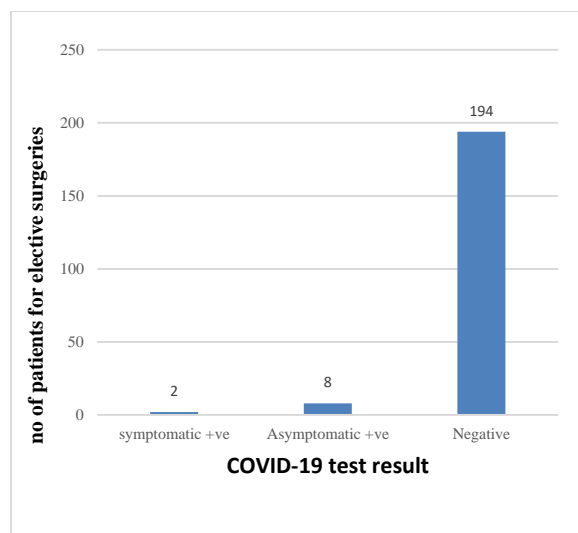


Fig.3: Pre-operative COVID-19 polymerase chain reaction results in patients for elective surgeries.

The 204 patients who had elective surgeries, had COVID-19 Screening tests done 24 -48 hours before

surgery. 194 (94.3%) of the patients for elective surgeries, their results came out negative while 10 were positive. 8 were asymptomatic infected patients while 2 were symptomatic Fig. 4 above.

The symptomatic patients had mild to moderate symptoms which included low-grade fever, generalized weakness, joint pain, anorexia, and nausea.

Discussion

The COVID-19 is the most recent pandemic caused by the severe acute respiratory syndrome coronavirus 2¹.The rate of spread was alarming so that it has become a pandemic in the space of three months of its discovery². The infection of high-profile personalities like Presidents, Prime Ministers and Governors also added to the hype and the scare associated with the disease. It is still an ongoing pandemic, which has resulted in severe economic, political, health, academic and social problems in all nations whether directly or indirectly. Directly, due to the lockdown of economic, health and social activities, the restrictions on air travel and movement have had a severe negative economic impact on the people. Indirectly, the exchange of goods and services was hindered due to the ban on international trade. These goods and services invariably became scarce and more expensive or outrightly unavailable³.

Despite all the hype and the scare of COVID-19, the Plastic Surgery Unit of the Department of Surgery continued to offer services to patients who decided to seek care during the lockdown. This was also necessitated by the possibility of prolongation of the duration of the pandemic due to the concept of the asymptomatic carriers⁴⁻⁶. The Unit decided to follow the guideline of the hospital, that all patients going for any procedure must have a COVID-19 PCR screening test earliest 72 hours before any elective case and just before the surgery in any emergency case.

The Plastic Surgery Unit performed 228 surgeries for 12 months of the total lockdown in Nigeria. There were more males than females with a male-to-female ratio of 1.5:1. Most of our patients were below 50years of age, accounting for 83.8 %. The peak age is in the third decade of life. This may not necessarily

mean that the disease burden is higher in this age group but they were more daring to seek care during the lockdown period. The older adults and the elderly may have been less daring because of the information about the severity of the pandemic in the elderly and those with co-morbid status. They were trying to isolate themselves from possible exposure to the virus.

Most of these patients had COVID-19 test results negative which could have been denied surgery and therefore their conditions could have become complicated by the time the restrictions were relaxed. “A stitch in time saves nine”. Adhering to universal precautions will allow patients to access care early reducing the disease burden. This will go a long way to prevent complications, morbidity and sometimes mortality. The elective cases (204) were in the majority, and these are the people whose surgeries were supposed to be postponed indefinitely⁷⁻⁹. The 10 patients who had positive COVID-19 tests were either asymptomatic or with mild or moderate symptoms. They were either transferred or admitted directly into the isolation ward where they were treated and confirmed to be viral negative before they were discharged from the ward.

The rate of infection among the patient who had plastic surgery procedures during this period was so low (5.6%), that it did not seem reasonable to have cancelled their cases as a result of the pandemic. Those who were positive for the disease were mainly asymptomatic and appropriate diagnosis and treatment without stigmatization gave them confidence to access their surgeries became negative for the coronavirus in less than three weeks and were discharged home.

Opening the Unit, for these patients to access some services also allowed the asymptomatic and pre-symptomatic carriers to be identified and treated. These patients are the main concern, that necessitated social and physical distancing, and eventual lockdown⁸. These services will also help stem the spread of the disease, instead of completely quarantining the whole nation¹⁰. This total quarantine leads to late presentation which -needs admission into the intensive care unit. The hype and the scare prevented many people from presenting early to access care because of the disinformation and

misinformation that almost equate diagnosis to a death sentence. In contrast, only 3% of the infected individuals will require intensive care.¹¹⁻¹² Though, there is a 40% mortality rate in those who had intensive care with system support.

Conclusion

The COVID-19 pandemic is a reality. However, the guidelines for the different communities should be developed or modified based on the spread and severity of the disease in their community. There is a need to domesticate any guideline henceforth in managing any epidemic or pandemic. Most hospitals should provide every resource needed to provide the health workers protection like face masks, hand sanitisers and personal protective equipment, then allow close to normal services at all levels. All patients that require close contact procedures should have COVID-19 screening. The staff should also have COVID-19 screening at intervals so as to ensure early diagnosis and prompt treatment. Elective surgeries should not be delayed or postponed during the pandemic if the COVID-19 test result is negative. Children and young adults should be able to access any hospital services except when the staffs are overwhelmed with emergencies or severe COVID-19 cases.

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