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Review Article

Gynaecological Surgery in COVID-19 Scenario

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Abstract

Covid-19 is an infection caused by a virus called Coronavirus. It has spread in the entire world to be a pandemic. It has changed the priorities of health care workers in the world. This article is an attempt to provide guidelines to the gynaecologists for the gynaecological surgery in COVID-19 scenario.

Keywords: *COVID-19; Coronavirus; Conservative Management; Health Care Workers*

Introduction

COVID-19 is a pandemic caused by Coronavirus. World last faced such a pandemic more than a century ago. It was far from imagination that world after being so developed in all fields could face such a pandemic.

In December 2019 a cluster of acute respiratory illness, now known as Novel Coronavirus Infected Pneumonia (NCIP) occurred in Wuhan, Hubei Province, China [1]. Pneumonia of unknown cause detected in Wuhan, China was first reported to WHO country office in China on 31st December, 2019. On 14th January WHO's technical lead said that there may have been human-to-human transmissions of the Coronavirus. As of 31st January, 2020 a total of 9692 NCIP cases had been confirmed in China. Internationally, cases had been reported in 24 countries and 5 continents [2]. The outbreak was declared a public health emergency of international concern on 30th January, 2020. On 11th February, the WHO declared a new name for the new Coronavirus disease, COVID-19.

On 11th March 2020 WHO declared the Coronavirus as a pandemic. As it was being reported by WHO of its human-to-human transmissions, most of the countries imposed lockdown to prevent human contacts thus to curtail the spread of the disease. The Indian government also imposed a nation-wide lockdown on 24th March 2020.

During this period of COVID-19 medical work and patients are suffering extensively. The medical team is either diverted to take care of the COVID-19 patients or to manage emergencies. Healthcare scenario has changed avoiding elective cases and managing emergencies. Meanwhile, protecting the healthcare workers is also important. New methods of protecting healthcare workers have been evolved with implementation of new infection control protocols.

Elective surgeries are avoided by surgeons all over the world due to risk of exposure to the patient and higher risk to the healthcare workers. Gynaecological surgeries are primarily elective except few emergencies which need to be operated.

In this article we have tried to provide some guiding principles for the gynaecologists. It is not based on any studies conducted during this period as COVID-19 pandemic is very unpredictable and individualization of treatment options is to be done.

Proposed gynaecological disease guiding principles for decision making during COVID-19 pandemic

Disease	Suggested Non-Surgical Options	Consideration for Surgery
DUB	• Oral Hormonal Therapy • Injectable Hormonal Therapy • Progesterone Releasing IUCD	• Endometrial biopsy if suspicion of cancer. • Previous failed Conservative Management with excessive bleeding and Severe anaemia
Fibroid	• NSAIDS and Antifibrinolytic Drugs • Combined oral contraceptives • Progestogen- Oral and Injectable • Progestogen releasing IUCD • Antiprogestogen • GNRH Analogs • Selective Progesterone Receptor Modulators • Less commonly used drugs like • SERM, Aromatase Inhibitors, Danazol	• Previous failed prolonged conservative management with severe pain and anaemia • Red degeneration of fibroid • Twisting of fibroid causing pain
Ovarian Cyst	• Conservative management is possible for smaller cyst	• Large cyst needs to be operated but can be delayed if no complication • Torsion or rupture is an emergency
Simple Cyst	• Hormonal therapy for 3-6 Cycles	
Dermoid Cyst	• Can be Delayed	
Cystadenoma	• Can be delayed if small	
Endometriomas	• Hormonal Contraceptives • GnRH agonist and antagonist	
PCOD	• Lifestyle changes and exercise • COCs • Progestin therapy • Metformin	
Ectopic Pregnancy	• Managed conservatively if size is < 3 cm and βhCG < 1000 stable patients • Treatment is with Methotrexate	• Surgery is an emergency if patient complains of severe pain with bleeding PV with hypotension
Abortion	• Should be discouraged. Pregnancy can be terminated medically if <6 weeks, if patient is educated and willing for regular checkup	• Surgical evacuation only when complication of medical termination occurs
Gynaecological Malignancies	• Need to be individualised according to the organ involved and stage of malignancy	• Surgery can be undertaken to prevent further spread of the disease and improve later prognosis
Pelvic Support Surgeries	• Less degree weakness can be treated conservatively • Major degree weakness needs surgical interversion which can be withheld	• Major degree weakness needs surgery which can be delayed 3-6 months
PID Adrenal Masses	• Medical treatment can give symptomatic relief	• Surgery can be delayed
Coital Lacerations	• Rule out STD • Watch for cervical lesions exclude cervical cancer	• If bleeding and pain is excessive then it is an emergency

Challenges for gynaecologists

As a surgeon, most prior responsibility of a doctor is healing in the operative and postoperative period. Under COVID-19 scenario, surgery may lead to exposure of the patient to infection and may also endanger the healthcare worker to the exposure. To prevent these complications to both, elective surgeries are deferred to for 3 - 6 months, conservative management should be given preference. Various societies have also advised triaging of patients for surgery and also given guidelines for handling waiting patients [3,4].

Patients can be divided into categories of new patients presenting for the first time with their problems. They can be offered conservative treatment according to the table and explained. The second category of patients is who are on conservative treatment as first line of therapy but will ultimately need surgery. These patients should be explained and surgery should be postponed for other 3 - 6 months. The third category of patients is who have been undergoing conservative management but didn't respond and now the condition has deteriorated, and may be life threatening, so need urgent surgery.

Guidelines for gynaecological surgery in COVID-19 pandemic

Main determining factor for surgery is the level of pandemic and availability of resources:

1. As far as possible avoid surgeries and offer non-surgical treatment options as shown in the table.
2. Postpone elective surgeries unless cannot be deferred.
3. Surgery should be done only if non-surgical treatment fails or if surgeon feels that delay might harm patients.
4. The risk of infection should be fully explained to the patients and relatives. They should have full involvement in decision making and consent.
5. Patient should be screened for COVID-19 to prevent healthcare worker exposure.
6. All safety precautions like preparations of OT, PPE kits, preference to spinal anaesthesia, healthcare worker management, biomedical waste disposal should be strictly followed as described for surgeries during COVID-19 pandemic [5,6].
7. Avoid aerosol generating procedures and laparoscopic surgeries.
8. Involve anesthetists and critical care teams for surgical, critical care and post-operative recovery planning.

The principles stated are just an advisory to the gynaecologists for patient management during COVID-19 pandemic. It should not be taken as evidence based study. In future due to advancements in medical science, further modification may be needed in treatment.

Conclusion

The key points in this article are that elective surgeries during this COVID-19 pandemic should be avoided. A gynaecologist has to weigh the pros and cons and explain it fully to the patient and involve it in decision making. If a gynaecologist has to operate, the patient should be screened and then operated. Spinal anaesthesia should be given to the patient with all surgical precautions and proper disposal. Patient should receive proper postoperative care under the guidance of critical care expert, as patients are most immunocompromised during recovery phase.

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