



## Being a Gynecologist Doctor Specialized in IVF, a Mother and a Woman at the Time of COVID-19

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### **ABSTRACT**

The COVID-19 pandemic is affecting people around the world with terrible impacts on health, economy, social and psychological aspects and so on, but in this paper, I would like to focus attention on how this situation is worsening the female world. Although men have been shown to have a higher risk factor due to the presence of testosterone, women are severely affected due to:

#### Health Impact

- Reduction of life expectancy in terms of delay on necessary oncological checks and consequent progression of related pathologies;
- Delay/Stop in taking up the battle against the infertility which can result in potential depression;
- A significant increase in fears for both, the woman herself and the incoming creature.

#### Social Impact:

The ability to resilience and manages critical situations have always been a female peculiarity but we cannot fail to consider objective data such as:

- Reduced chances to save the job position after a severe economic crisis;
- Enormous stress for the dual role of mother and worker aggravated by the distance learning (DAD)

In this work I will bring to the attention my experience in this emergency period as a gynaecologist doctor specialized in In Vitro Fertilization (IVF); as a mother and as a woman living this situation in the Italian Society.

## 1. INTRODUCTION

Sadly, everybody knows about COVID 19, in fact, Coronavirus 19 has caused a state of Emergency worldwide in only two months and a Pandemic has been declared.

COVID 19 has caused more than 1,5 million total deaths in the world-changing the demography of the globe with an increase of deaths and a decrease in births.

Coronavirus 19 has a different effect on each gender, in fact, is more aggressive in males compared to females.

For this reason, the fatality rate is double in men and this is probably correlated to a major sensibility due to testosterone and angiotensin-converting enzyme (ACE2) [1].

But the female world has been really disrupted by COVID 19 across several areas, first of all about health (oncological, infertile, pregnant patient) then a strong impact in social and psychological tasks.

## 2. HEALTH IMPACT

### 2.1 The oncological patient

The cancer patient was really hit during the blockade due to the reduction of access to the hospital, in fact, this type of patient requires a mandatory path within the hospital itself.

First of all, the reduction of the first level screening test was recovered, the pap test, for example, is a test performed in asymptomatic patients therefore, for this reason, there was a delay in the diagnosis and in the follow up for cancer of the cervix.

In Italy, the reduction of pap tests performed, during the lockdown and so far, has resulted in a reduction of 1,676 diagnoses of HPV lesions (CIN2) [1].

A worrying stop to HPV vaccination, which is the most useful tool for stopping the transmission of HPV in young people, has also been recovered [2].

The same situation was claimed for breast and colorectal cancer, the delay of months caused by the lockdown caused 1 million fewer diagnosis tests resulting in 2000 lost breast cancer diagnoses and 600 cancer diagnoses to the colon lost [3].

### 2.2 The infertile patient

In Italy from 13th of March to 4th May 2020, during the tight restriction of the lockdown due to the Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2), there was a suspension of the ART program and for office activity for couples who have not yet started ovarian stimulation, unless the treatment was urgent due to cancer.

ART is commonly known as “artificial fertilization” is the

set of techniques used to help conception in all couples, in the case where spontaneous conception is impossible or extremely remote and in cases where other interventions pharmacological and or surgical are have been without success.

It wasn't allowed also a non-urgent gamete donation program. These were the Recommendation from the Italian Authority for ART [4].

ART uses few types of techniques that involve the manipulation of oocytes, spermatozoa, or embryos as part of treatment aimed at achieving pregnancy.

These methods are represented by not equal approach with different therapeutic options divided into I, II, III level techniques based on complexity and degree of technical invasiveness that characterizes them.

In Italy, the National PMA Register, managed by the Istituto Superiore di Sanita', collects the data of the structures authorized to apply PMA techniques, embryos formed and those born with PMA techniques and processes them for the Annual Report of the Minister to Parliament which allows a constant vision of the trend over the years, also to allow the transparency and publicity of the medically assisted procreation techniques adopted and the results achieved.

It also provides a detailed map of the authorized centers in each Italian region [5].

It was a safe approach to take care of the patient to avoid in case of emergency (bleeding after egg retrieval) the access to the Hospital, totally busy for the COVID 19 Pandemia.

The suspension of non-urgent treatment has been recommended.

Obviously, this forced stop has caused a state of emotions, anxiety, and stress in the infertile couples [6].

The consequences in terms of number with the stop of IVF for only one month are a reduction of 7500-8000 IVF-cycles and a reduction of 1500 new babies

It's true that lockdown has had, for these reasons a social effect, after 9 months from lockdown (from 13th March 2020 to 4th May 2020) we had a total of 4500 fewer newborns with a total of 3000-3500 IVF cycle canceled [7].

This data is also worrying for the future we can have a forecast of a decrease of 27000 newborns in 2021 [8].

The resumption of ART activities, in the third phase, has been regulated by the ESHRE guidelines that showed us how to manage the patient and the couple.

The Main attitude has been the search for safety [9].

## 2.3 The pregnant patient

With this type of patient, we had to face a double problem, the mother and the fetus.

Obviously, at the beginning COVID 19 was absolutely not known and the effect it could have on pregnancy, delivery and breastfeeding was also unknown.

For this reason, I decided to divide the management of pregnancy into two approaches, the first in the case of a negative COVID-19 patient and the second in the case of a positive patient.

### 2.3.1 Pregnant patient negative for COVID 19

A pregnant woman, during the COVID 19 Pandemic must follow all the rules given to the general population.

She is more vulnerable to an increased risk of respiratory infections in pregnancy.

For the proper management of pregnancy, it is very important to maintain periodic checks by the gynecologist [10].

The role of the partner is very important also because often due to the social balance the pregnant woman feels alone.

The international guidelines for best following pregnancy during pandemic predicted:

- At least 6 prenatal checks in the presence (including a scan and diagnosis tests)

- Triage by phone (symptoms, fever for the patient and the partner)

- Mandatory ultrasound

- a. 10-13 weeks nuchal translucency and screening tests

- b.19-21 weeks structural anomalies

- c.Ultrasound at the end of gestation to evaluate the growth of the fetus and the amount of amniotic fluid

The Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) doesn't increase miscarriage, stillbirth, preterm labor, or teratogenicity to date [11] but has been recorded in Italy, in Lazio, where exactly there has been an increase of about three times in stillbirth during the lockdown caused by reduction of routinary check during pregnancy [12] so for this reason is compulsory to maintain the medical controls that are suggested.

Obviously, in the event that the partner is positive for COVID 19, the isolation of the same is suggested [13].

### 2.3.2 Pregnant patient positive for COVID 19

The pregnant patient is much more susceptible to respiratory infections than a non-pregnant person [14] for this reason is strongly recommended to avoid any risk of contracting COVID 19.

Limited information suggests that the pregnant woman with COVID 19 might be at an increased risk for severe illness compared to a non-pregnant woman [15].

In the case of a pregnant woman suffering from COVID 19, it is strongly suggested to procure all the protection for caregivers, is a dedicated Hospital with Covid-Area, the patient can be assisted by an asymptomatic person.

From the most recent literature, the indications for childbirth are not necessarily surgical for this reason Caesarian section is not recommended except for obstetric indications.

Labor in the water is not allowed due to the risk of fecal transmission of the virus.

The health conditions of the future mother are fundamental for managing labor, breastfeeding, and rooming-in.

In case of a patient's respiratory insufficiency with saturation less than 94%, the Caesarian section becomes strictly necessary.

Maternal conditions after childbirth determine the conduct of breastfeeding and the management of rooming-in [16].

In case of mother positive for COVID 19 but asymptomatic or paucisymptomatic, rooming-in is feasible and breastfeeding is advisable maintaining control of the measures of the infection [17].

Actually, there is no evidence of SARS-CoV-2 transmission through breast milk, of course, we need more data and longer follow-up.

In the case of a sick mother the baby, of course, has different management, the mother's milk should be previously extracted and kept unpasteurized.

In case of very bad health mother's condition, when it is not possible to extract milk, the milk banks are an excellent alternative [18].

### 3. SOCIAL IMPACT

#### 3.1 Smart working and mother teacher

The World Health Organization (WHO) has warned us of a worrying negative impact of COVID-19 on mental well-being.

The pandemic is always a very stressful situation regardless of the sex or age of the person but the resilience of the female gender, in the COVID 19 pandemic, has been really strong [19].

A pandemic causes a tragic emotional mix in the population: anxiety, stress, loneliness, sadness, fear for the future, and when a couple has children this burden is heavier.

Recent data has suggested that the pandemic has caused a spike in female job loss.

The woman is in the balance between children and an increase in housework struggling with the lockdown.

Between the second quarter of 2019 and the same period of 2020, female employment lost 470 thousand jobs for a decline of 4.7% in the year; out of 100 jobs lost, 55.9% are women. Employment, which proved to be more resilient, lost 2.7% out of 371,000 employed.

During the last lockdown, in Italy, in the spring, women managed an overload of work that was declared "unprecedented".

In that period, from March-May 2020, women continued to work (smart working) combining the dual role of worker and mother following the remote teaching of children, the difficulty in reconciling work and family, during the lockdown was impressive. In May 2020, unemployment rose to 7.8% with a strong penalty for women [20].

In a very recent survey, it emerged that 65% of working mothers do not consider distance learning and work to be reconcilable and among these one in three mothers are ready to leave their jobs to look after their children [21].

#### 3.2 Intimate partner violence (IPV)

The lockdown was the scenario of a dramatic increase in IPV (Intimate Violence Partner) unfortunately in this case a woman is forced to be with a partner and this means that the victim is trapped, at home, with her attacker.

IPV increased by 20% during the lockdown with a total of 15 million registered cases

It is a very sad reality and it is impossible to accept it.

Calls to emergency numbers increased by 50% [22].

There are different kinds of violence: first of all, physical then psychological and of course sexual, every kind of this is repulsive and condemnable

These data suggest a tragedy in a tragedy, intimate violence during a very stressful pandemic

Fortunately, it is growing, a way of supports not to leave these women alone, like WAVE (Women Against Violence Europe) which is a European Association that protects and defend the rights of women, the helpline violence and stalking that is in every country

It has been recovered an increase in requests for help of 73% during lockdown compared to the same period last year.

It is very important to create cooperation between the Institutions and the Police.

The helpline has had a central role during the lockdown and it is a lifebuoy, a woman that needs help must call the helpline and stop.

### 4. CONCLUSIONS

The COVID-19 pandemic is affecting people worldwide with terrible impacts on health, on the economy, on social psychology. Today I would like to focus my attention on what is becoming a huge problem for the female world.

Although it has been demonstrated that the male gender is at a higher risk of contracting COVID 19 due to the presence of testosterone, women are also severely affected in different ways:

#### Health Impact

- A reduction of life expectancy due to delays in necessary oncological check-ups and therapies and the consequent progression of related pathologies.

- The fight against infertility can cause depression, especially when there are delays in therapies and treatments or if they have to be interrupted.

- There is a significant increase in fear. Women are particularly worried about themselves and obviously for their unborn child.

#### Social Impact:

The ability to be resilient and to manage critical situations has always been at the top of the list for women, however, we must not ignore objective data that demonstrates:

- Reduced opportunities and difficulty in holding down a position at work after the severe economic crisis.

- Rising stress levels due to the dual role of being a mother and an employee, which has worsened with the introduction of distance learning requirements. (DAD)

In this work, I focused my attention on my experience in this emergency period as a gynecologist specialized in "In Vitro Fertilization" (IVF), as a mother, and as a woman living through this current difficult situation in the Italian Society.

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## NOMENCLATURE

CIN2	Cervical Intraepithelial Neoplasia (CIN) grade 2
COVID.	CO corona,VI virus,D disease,19 2019 year of its appearance
DAD	Didattica A Distanza
HPV	Human Papillomavirus
ART	Assisted Reproductive Techniques
PMA	Medically assistested procreation
AOGOI	Association of local Italian hopsice gynecologists anf freelancers
SIGO.	Italian society gynecology and obstetrics
ISTAT	National Institute of Statistics
ESHRE	European society of Human Reproduction and Embriology
WHO	World Health Organization
IPV	Intimate Partner Violence
WAVE	Women Aganist Violence Europe