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Reorganization Strategies for an Obstetric Department During COVID-19 Outbreak: Experience of Ankara City Hospital in Turkey

COVID-19 Pandemi Sürecinde Ankara Şehir Hastanesi Obstetrik Departmanının Almış Aldığı Önlemler

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ABSTRACT

Since December 2019, the COVID-19 pandemic continues to threaten the whole world. The pandemic struggle has also changed prevention strategies and the health system and caused health institutions to take new precautions. In this article, the arrangements and preventions taken by the obstetrics clinic of Ankara City Hospital Obstetrics and Gynecology Department, which has followed up many cases during the pandemic process, for COVID-19 are explained.

Keywords: COVID-19, obstetrics, primary prevention

ÖZET

Aralık 2019 tarihinden itibaren COVID-19 pandemisi dünya sağlığını tehtit etmeye devam etmektedir. Pandemi mücadelesi sağlık önlemleri ve sağlık sistemini de değiştirmiş ve sağlık kuruluşlarının yeni önlemler almasına neden olmuştur. Bu makalede pandemi sürecinde çok sayıda vaka gören Ankara Şehir Hastanesi Kadın Doğum Kulesi obstetrik kliniğinin COVİD-19 için yapmış olduğu düzenlemeler ve alınan önlemler anlatılmıştır.

Anahtar Kelimeler: COVID-19, obstetrik, primer önlem

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As of December 2019, the whole world is facing the global health threat posed by COVID-19. After the identification as the cause of unusual pneumonia cases in Wuhan, China, it rapidly spread throughout the world causing a global pandemic.[1] This outbreak has affected all aspects of life, especially the health systems. Hospitals has arranged their prevention strategies according to the their knowledge about the disease.[2-4] The first case was identified in 11th of March, 2020 in Turkey.[5] After the identification of this first case, Turkey Ministry of Health developed effective policies and strategies for handling this crisis. We, as our hospital, took many precautions at multiple levels to provide optimized care for patients as well as our health care workers.

We have ruled our prevention strategies according to four main tips:

a. Initial triage at different entry points in the hospital

b. Arrangement of COVID (+) zone

c. Organization of the health care workers

d. Precautions in different units (outpatient obstetric clinic, ultrasound unit, postpartum clinic)

INITIAL TRIAGE

Initial triage is done to staff and patients arriving to hospital via different entry points. These are located in the entrance of emergency clinic, outpatient clinic and the entrance of car park (Figure 1). Typical screening includes temperature recording and targeted history towards respiratory symptoms, as well as history of travel or recent close contact with an infected patient. We use the Ministry of Health check list for the COVID-19 disease during the inital triage. After the segregation of high-risk and low-risk patients, a specific isolation area is available to evaluate high-risk patients. These patients are given a mask and directed to a specific area to avoid exposing to other patients.

COVID-19 ZONES

We has arrenged separate areas for suspected and confirmed patients. The entrances of these areas are also different from the other entrances. Starting from the corridor, all areas are under negative pressure and there is a pre-changing area for medical staff entering into zones with personal protective equipment (PPE) (Figure 2). Charts are placed on the walls demonstrating dressing and undressing of PPE. There are another separate areas in these areas for taking nasal swabs when necessary. These large areas have its own material supply and also labor and delivery of suspected/confirmed patients (vaginal/cesarean) can be performed in these isolated areas (Figure 3). Areas have their own health care workers and disinfection team. During transportation of the patients, interaction with other people should be avoided.

For the vaginal delivery, we design a delivery table shield for the protection of the health care work-

FIGURE 1: Initial triage in the entrance of the hospital.

FIGURE 2: The areas with negative pressure.

FIGURE 3: Delivery rooms in the COVID area.

ers from infected respiratory droplets during pushing and second stage of labor (Figure 4).[6]

During the delivery, all staff in contact with suspected/confirmed cases should be equipped with appropriate PPE (N95/FFP2-3 facial mask, disposable gown, gloves, googles or face shield) and patients should wear surgical mask.[7] Oxygen saturation should be kept ≥92-95% during labor and delivery. COVID-19 is not an indication to alter the route of delivery. Cesarean delivery is performed for standard obstetric indications, which may include acute decompensation of mother with COVID-19.[8]

ORGANIZATION OF THE HEALTH CARE WORKERS

All staff are educated on the standard infection prevention control measures (wearing mask, maintaining social distance and hygiene) and use PPE according to the patient situation.[9] Health care workers are divided into several rotating teams, which have no contact with each other and it is important to limit shift durations to a reasonable amount of time. Every health care worker is subject to temperature measurement at hospital entrance. Regular meetings are performed to study the recent progress of the situation. Educational programmes and examinations were performed as online meetings.

PRECAUTIONS IN DIFFERENT UNITS

OUTPATIENT OBSTETRIC UNIT

Triage is done at entry points of outpatient obstetric unit. Suspected infected pregnant patients are directed to the specific area reserved for these women in the emergency department as mentioned above. Social distancing and prevention of crowding is encouraged in the waiting area. The seats are spaced to at least 2 m apart. Standard antenatal follow-up protocols are modified according to the low-risk and high-risk pregnancies. These modifications are reducing the number of in-person visits, timing of visits, grouping tests for the same visit and restricting visitors during the visits. Pregnant women are advised to measure blood pressure at home. Authorities suggest most low-risk pregnant women come to the office only for in-person prenatal visits at approximately 12, 20, 28, and 36 weeks of gestation.[10] Patients should be screened for COVID-19 and can undergo pre-induction/pre-cesarean laboratory testing the day before a planned induction or cesarean

FIGURE 4: Delivery table shield for the protection of health care workers.

delivery. Online information booklet about the COVID-19 pandemic process is prepared for the pregnant women (Figure 5).

FIGURE 5: Online information booklet for the pregnant women.

ULTRASOUND UNIT

Ultrasound room is cleaned thoroughly every morning and all contents are disinfected. Ultrasound transducers, cables and touched surfaces of the machine are thoroughly cleaned after each examination. Since it can be a barrier for disinfectant and diminishes its efficacy, any remaining gel on transducers should be cleaned first. For disinfection of the ultrasound machine and transducers, hospital's infection control policies and manufacturer's instructions for use are referred. High-level disinfection is recommended for transvaginal but not transabdominal transducers.[11] It is encouraged to respect the time of scheduled visits by the patients and widen the appointment intervals. A bedside scan with the patient in situ is strongly recommended for suspected or confirmed COVID-19 patients. During the ultrasonographic examination of the COVID-19 patient, a protection shield that allowed only hand contact with the patient is used (Figure 6).

FIGURE 6: Ultrasonographic examination with protection shield.

POSTPARTUM UNIT

Patients should wear surgical mask. Visiting time is limited for support staff, no visitors are allowed, if COVID (+). Limited visiting time for support person, if COVID (+), no visitors allowed. The infants of mothers with COVID-19 are considered COVID-19 suspects, and they should be tested, isolated from

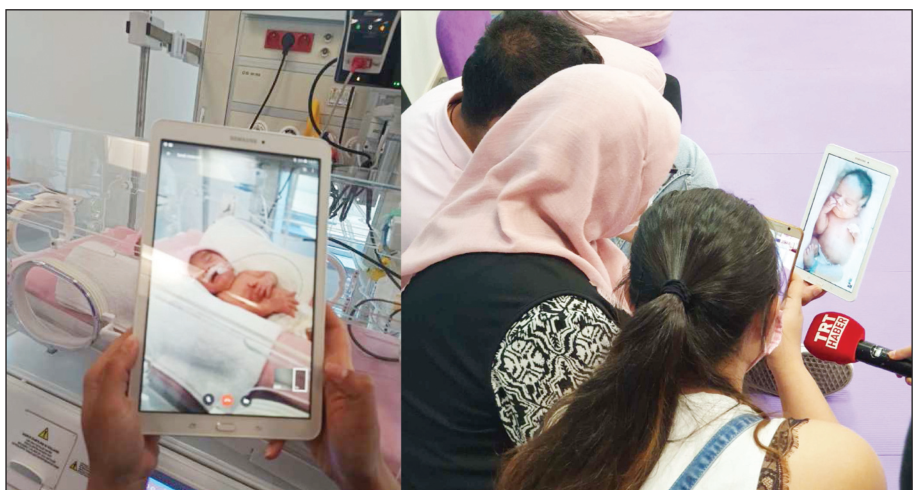

FIGURE 7: Mobile device application for the babies who are hospitalized in NICU.

other healthy infants immediately after delivery, and cared for according to infection control precautions for patients with confirmed or suspected COVID-19. The World Health Organization has opined that mothers who have suspected, probable, or confirmed COVID-19 virus infection should be enabled to remain together and practice skin-to-skin contact.[12] There is general consensus that breastfeeding should be encouraged because of its many maternal and infant benefits. Given the uncertainty about the NSAID's possible negative effects on disease progression, acetaminophen is suggested as the preferred analgesic agent, if possible, and if NSAIDs are needed, the lowest effective dose should be used. A mobile device application for the couples whose baby is hospitalized in the neonatal intensive care unit (NICU) is created (Figure 7). With the aid of the application, couples can see their babies by the mobile device and make their connection with their babies.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

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