Case Report

Treatment of Hydatidiform Mole Suspected to COVID 19

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Abstract

The aim of this study was to report a case of the treatment of hydatidiform mole in Coronavirus pandemic in Iranshahr. A 17-year-old primiparous woman with gestational age of 14 weeks presented with unilateral leg swelling and sudden abdominal distension beginning in the night before referring to the health center. In the abdominal examination of the patient by a healthcare provider, the baby's heartbeat was not heard and a mismatch was observed between gestational age and fundal height, which corresponded to approximately 24 weeks of gestation. She was conscious and pale with hematuria and uterine contractions. After inserting two IV lines, the patient immediately underwent monitoring and was visited by a gynecologist. Complete molar pregnancy was diagnosed with an enlarged heterogeneous uterus 180 cm × 90 cm in size and containing 170 mm × 80 mm cysts. The treatment began with vancomycin AMP, hydrocortisone AMP, oseltamivir CAP 75 mg, kaletra CAP 200 mg, and meropenem AMP.

Keywords: COVID, hydatidiform mole, treatment

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Submitted: 28-May-2021; **Revised:** 28-Dec-2021; **Accepted:** 04-Jan-2022; **Published:** 28-Nov-2022

Introduction

Coronavirus-induced respiratory diseases in human was first reported in Wuhan, China on December 31, 2019, and quickly broke out in other parts of China and other countries.[1,2] On January 30, 2020, the World Health Organization (WHO) labeled the outbreak as a public health emergency of international concern.[3] Pneumonia caused by COVID-19 is a highly contagious and infectious disease declared a health emergency by the WHO.[4,5] The entire human population is at risk for contracting coronavirus disease (COVID-19).[3] Given the immune and anatomical changes during pregnancy, pregnant women are more vulnerable to the virus. The COVID-19 pandemic can cause serious consequences for pregnant women.[4-6]

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Quick Response Code:

Website: www.advbiores.net

DOI: 10.4103/abr.abr_142_21

The clinical features and effects of COVID-19 during pregnancy and the prenatal outcomes of COVID-19 patients have rarely been addressed in the literature.[7] Moreover, COVID-19 associated infections in molar pregnancy have never been reported.[8] Clinical experience with managing pregnant women and newborns with COVID-19 is also limited.[9] Given the importance of the issue and the lack of sufficient evidence, the present study aimed to report a case of a primiparous woman with complete molar pregnancy suspected to coronavirus infection.

Case Report

A 17-year-old primiparous woman with a gestational age of 14 weeks presented on March 1, 2020, at 5:30 pm. with unilateral

How to cite this article: Azarkish F, Rigiyousefabadi S, Janghorban R, Aminifard M, Bozorgzadeh S, Zahirnia M, *et al*. Treatment of hydatidiform mole suspected to COVID 19. Adv Biomed Res 2022;11:105.

leg swelling and sudden abdominal distension beginning in the night before referring to the health center Sarbaz. The patient had a history of fever, abdominal pain, dry coughs, and shortness of breath during the previous week and nausea, vomiting and fatigue during the previous 2 months, but she had no family history of respiratory disorders. As a housewife who had not recently traveled, she did not report a history of hypertension, surgery, allergies, and underlying diseases.

In the abdominal examination of the patient by a healthcare provider, the baby's heartbeat was not heard and a mismatch was observed between gestational age and fundal height, which corresponded to approximately 24 weeks of gestation. The physical examinations also showed body temperature of 37.5°C, blood pressure of 140/90 mmHg, heart rate of 119 bpm, respiratory rate of 18 per min, and oxygen saturation of 97% at room temperature using an oximeter pulse. Moreover, the laboratory tests showed hemoglobin (HB) = 8.4 and urinary protein of + 1. Given the blood pressure of 140/90 mmHg, four g of a 20% MgSo4.7H_2O USP solution added to 100 ml of Ringer's solution was intravenously injected within 20 min and 10 g of a 50% magnesium sulfate solution was injected deep into the muscles, 5 g at each buttock [Table 1]. After receiving a Foley catheter, the patient was transferred in an ambulance to Iran Hospital, Iranshahr as a referral center for pregnant women while receiving 6–8 l/min of oxygen in a left lateral recumbent position aided by a midwife. The patient was admitted to the maternity ward at 9 pm. She was conscious and pale with hematuria, uterine contractions and vital signs of blood pressure = 110/70 mmHg, pulse rate = 99, respiratory rate = 18, body temperature = 37.3°C and urine output = 300 ml/hr. After performing the tests by inserting two IV lines into the left brachial vein (n = 20) and the right radial vein (n = 18), the patient was immediately monitored and was visited by a gynecologist. Vaginal examination showed a closed cervix

Table 1: Laboratory data

Laboratory Test	Measure	Reference range	March 1	March 2	March 3	March 4
CBC	WBC (cumm)	4-10	8.5	15.7	14.3	NA
	RBC (Mill/cumm)	4.2-5.4	1.9	2.96	3.48	NA
	Hemoglobin (g/dl)	10-16	5	7.3	8	NA
	Hematocrit (%)	35-40	15.3	20.7	24.3	NA
	Platelets (cumm)	150,000-450,000	182,000	107,000	115,000	NA
WBC differential	Neut (%)		80	89	NA	NA
	Lymph (%)		18	6	NA	NA
Urine analysis	Bacteria	-	Negative	NA	NA	NA
	PH	5-7	5	NA	NA	NA
	Specific gravity	1.005-1.030	1.030	NA	NA	NA
	Proteins	-	Trace	NA	NA	NA
	Blood	-	3+	NA	NA	NA
	Keton	-	Trace	NA	NA	NA
	WBC	-	2-3	NA	NA	NA
	RBC	-	Many	NA	NA	NA
Biochemistry	SGOT (AST) U/L	<31	47	59	NA	NA
	SGPT (ALT) U/L	<31	60	42	NA	NA
	Phosphatase Alkaline	64-306	36	268	NA	NA
	BUN (mg/dl)	7-20	11	18	12	NA
	Creatinine (mg/dl)	0.6-1.3	0.8	0.8	0.6	NA
	Bilirubin total (mg/dl)	0.3-1	0.9	3.2	NA	NA
	Bilirubin direct	0.1-0.3	0.3	1.9	NA	NA
	LDH (U/L)	<480	NA	962	NA	NA
	Creatine phosphokinase (U/L)	24-170	NA	840	NA	NA
Coagulation tests	PT	12-14	14	13	NA	NA
	PTT	28	28	37	NA	NA
	INR		1.1	1	NA	NA
Hormone	TSH (mlU/L)	0.32-5.2	0.2	NA	NA	NA
	T4 (mg/dl)	4.7-12.5	23	NA	NA	NA
	T3 (ng/ml)	0.6-2.1	5.6	NA	NA	NA
Immunology and serology	CRP	<10	NA	2+	3+	NA
Hematology and coagulation test	ESR (mm/hr)	15-20	NA	46	NA	57
	Beta HCG Titr in serum		NA	183,700	NA	NA

WBC: White blood cells, RBC: Red blood cells, AST: Aspartate transaminase, ALT: Alanine transaminase, NA: Not applicable, LDH: Lactate dehydrogenase, SGOT: serum glutamic-oxaloacetic transaminase, SGPT: serum glutamic-pyruvic transaminase, BUN: Blood urea nitrogen, PT: Prothrombin time, PTT: Partial thromboplastin time, INR: international normalized ratio, TSH: thyroid stimulating hormone, CRP: C-reactive protein, ESR: erythrocyte sedimentation rate, HCG: Human Chorionic Gonadotropin, CBC: Complete blood count.

with no bleeding. Moreover, the patient received 1000 ml of normal saline. An ultrasound was performed by a radiologist at 9:30 pm. Complete molar pregnancy was diagnosed with an enlarged heterogeneous uterus 180 cm × 90 cm in size and containing 170 mm × 80 mm cysts. Then, 400 μg of vaginal misoprostol (Cytotec) was administered. At 22:10, one unit of packed red blood cells (PRBCs) was administered due to HB = 5, and the patient did not show any allergy or shortness of breath during the blood transfusion. Two units of PRBCs were also reserved for the following morning. Counseling was performed by an internist, a cardiologist and infectious disease specialist. The internist evaluated the patient for thyroid storm and signs of pulmonary thromboembolism. Stat anti-coagulant, hydration and hydrocortisone injection (stat and three times a day) were administered. Thyroid tests were also performed, which showed thyroid-stimulating hormone: 0.2, T4:23 and T3:5.6. No heart problems were observed during the cardiac counseling. The infectious disease specialist suggested the risk of lung metastasis due to molar pregnancy.

Regarding the risk of developing COVID-19, the patient was transferred to the corona ward for isolation. The treatment began with vancomycin AMP 1 g BID, hydrocortisone AMP 100 mg/ml STAT and TDS, oseltamivir CAP 75 mg for 5 days, Kaletra CAP 200 mg for 5 days, and meropenem AMP 1000 mg TDS. The patient's body temperature and oxygen saturation respectively reached 37.4°C at 98% an hour later.

A surgical mask was provided for the patient. Contact precautions were observed and all the healthcare team members were provided with appropriate personal protective gear and droplet. The patient underwent monitoring at 00:00 am. due to dry coughs and respiratory distress. The oxygen saturation reached 98% after undergoing oxygen therapy. The reverse transcription polymerase chain reaction sample was taken using oral and throat swabs. Based on the results of the RT-PCR, it was found that the patient be negative for COVID-19. At 00:10 am., 1/3–2/3 IV fluid therapy started at 30 drops/min. At 04:30 am., the patient's urine output was below 100 ml/hr. The patient was transferred to the operating room the next day (March 2, 2020) at 6 am. while receiving the second unit of PRBCs.

Under sterile condition after prep and drop in dorsal lithotomy position after TV, the height of the uterus was 24–26 weeks, suction curettage was performed to evacuate the uterus contents. First suction curettage was performed and sharp Kurt was then inserted in the uterus. During the curettage, the patient received 20 units of oxytocin in 1 L of normal saline plus 0.2 mg of methylergonovine.The contents of the uterus were about 1 L. Samples of the pregnancy products were transferred for pathological examinations. There was no bleeding at the site of the tenaculum.

The patient received the third unit of PRBCs on the 2nd day at 8 am. Chest radiography was performed by a radiologist at 8:20 am. that showed multiple nodules in both lungs. After developing severe respiratory distress at 11:40 am., the patient was visited by an anesthesiologist, an infectious disease specialist and a gynecologist. Then she underwent oxygen therapy at 6–8 l/min with a mask. The patient was intubated at 13:30 and transferred to the intensive care unit with a respiratory rate of 52, body temperature of 37°C, and pulse rate of 170 [Figure 1]. The next day, computed tomography (CT) scan was performed due to shortness of breath, respiratory distress and lowered oxygen saturation (92%).

The CT scan showed bilateral ground-glass patches [Figure 2], suggesting COVID-19. Then, the patient underwent hydration with 1500 ml of normal saline at 30 drops per min and oxygen therapy at 8 liters per min with a mask. At 3rd day at 18:00, the patient had a fever of 38.50°C. The Apotel AMP was injected. Symptoms of the patient began to improve on the 4th day [Figure 3].

Feeling fine on the 5th day, the patient was discharged from the hospital with a good general health status. She was followed up for 2 weeks at a private recovery center for patients discharged from the hospital. Given the problem of distance, weekly phone follow-ups were performed for 4 weeks after discharge, and the patient did not report any problems.

Discussion

The reported case in the present study which was pregnant woman requiring mechanical ventilation was the first case with the clinical symptoms and CT scan of the lungs suggesting infection with coronavirus. Molar pregnancy was confirmed in the second trimester which increased the risk of developing COVID-19 and complicated conditions. The patient did not report any underlying diseases. Fever, dry coughs, and shortness of breath were observed in the current patient as in the case of other patients with COVID-19 reported in the literature.[3,7]

Knowledge about the clinical spectrum of infection with COVID-19 in molar pregnancy is very limited.[10] Despite negative test RT-PCR sample results, clinical findings, and the CT scan of the lungs suggesting COVID-19 as a life-threatening condition do not interfere with the disease

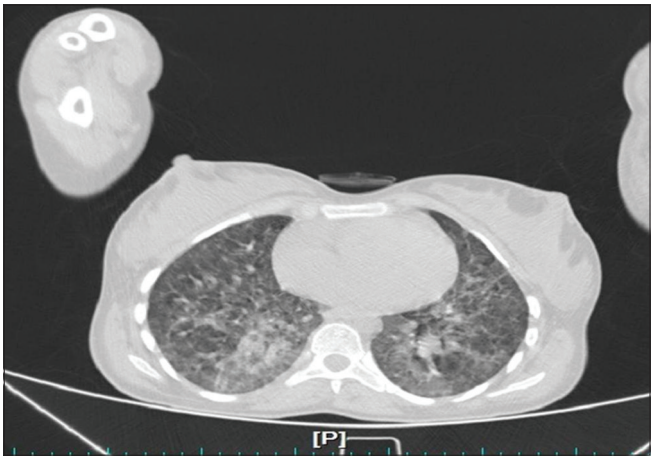

Figure 1: Computed tomography image lunges

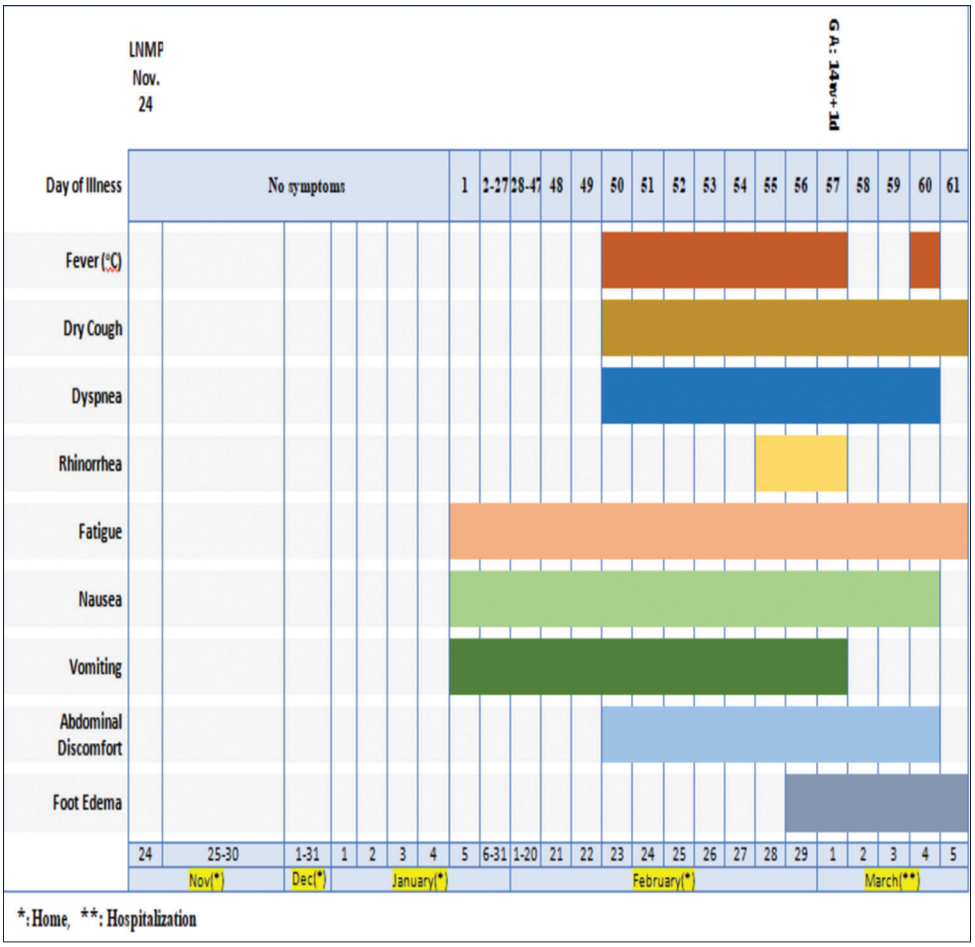

Figure 2: Symptoms according to day of illness and day of hospitalization, March 1 to March 5, 2020

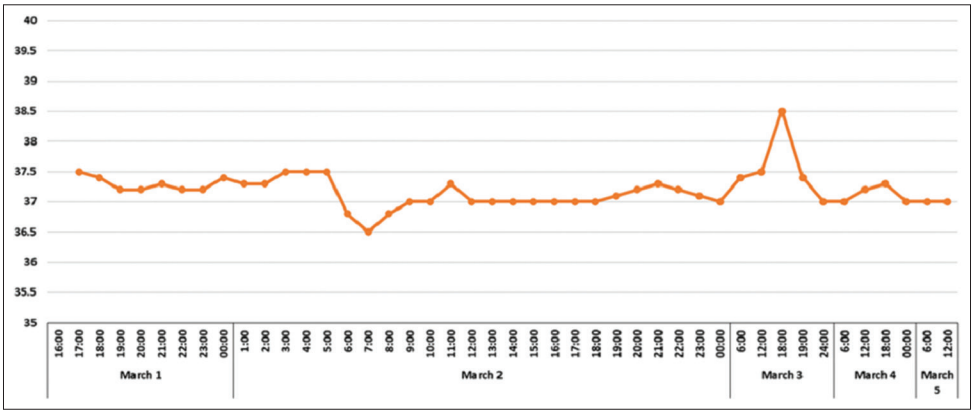

Figure 3: Body temperature recording during hospitalization, March 1 to March 5, 2020

management.[2] It is recommended to investigate the overall effects of COVID-19 on pregnancy and neonatal outcomes and its long-term prognosis in future studies. Collecting the information of more COVID-19 patients with molar pregnancy can lay the foundations for developing clinical guidelines aimed at managing future cases.

Ethics approval and consent to participate

This case report was approved by the ethics committee of Iranshahr University of Medical Sciences) IR.IRSHUMS.REC.1398.015).

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the legal guardian has given his consent for images and other clinical information to be reported in the journal. The guardian understands that names and initials will not be published and due efforts

will be made to conceal identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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