

**Conclusion.** Fostamatinib has the potential to provide a treatment option for the hyperimmune complications of COVID-19.

### Figure 4. References

1. Hoepel W. *Sci Transl Med.* 2021
2. Apostolides S. *BioRxiv.* 2021
3. Strich J. *J Infect Dis.* 2020
4. Nadeem A. *Int Immunopharm.* 2019
5. Van Eeuwijk J. *Arterioscler Thromb Vasc Biol.* 2016
6. Weinblatt M. *Arth Rheum.* 2008

**Disclosures.** Ziad Mallat, MD, PhD, Rigel Pharmaceuticals, Inc. (Consultant) Sandra Tong, MD, Rigel Pharmaceuticals, Inc. (Employee, Shareholder)

### 562. Tocilizumab Use in the Second Trimester Pregnant Patients with Severe Covid-19 Pneumonia and their Maternal and Fetal Outcomes: Two Case Reports

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**Session:** P-24. COVID-19 Treatment

**Background.** Tocilizumab is an interleukin-6 monoclonal antibody with widespread use in rheumatologic conditions. Observational studies have shown a promising role of Tocilizumab in severe COVID-19 patients with cytokine storm syndrome. Data about tocilizumab use in pregnant patients is limited. We report two outcomes of two pregnant patients with COVID-19 in the second trimester who received tocilizumab

**Methods.** A 24-year-old 20 weeks pregnant lady with a history of asthma and gestational diabetes mellitus presented with three days history of fever, cough and shortness of breath (Figure 1). She was clinically stable but later developed ARDS and developed increased oxygen demand up to 10 liters/min. She received Tocilizumab on. Patient was observed in a high dependency unit but did not require mechanical ventilation. Patient was discharged home with full recovery and later delivered a healthy baby. Timeline of medicines used during hospital (Figure 2). Case 2: 39-year-old 23 weeks pregnant lady presented with seven days history of fever cough and shortness of breath (Figure 1). On presentation, she had progressive worsening hypoxic respiratory failure and was intubated. Patient had her nasopharyngeal swab for CODI-19 RT PCR was positive. The patient had severe ARDS requiring ECMO (extracorporeal membrane oxygenation) for respiratory support. Tocilizumab 400 mg was given on the presentation, along with other medications (Figure 3). Patient had regular monitoring of fetus; however, she had intrauterine fetal demise on day 14. Patient It is unclear if IUFD was due to using of tocilizumab or severity of COVID19 itself. The patient stayed in ICU for 20 days and was discharged after full recovery.

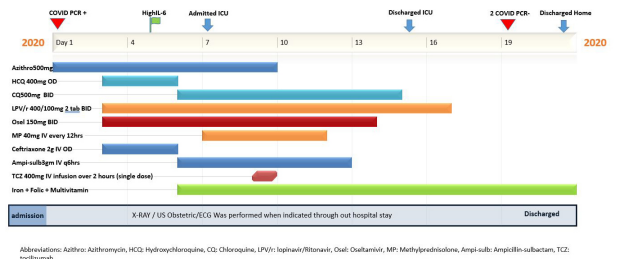
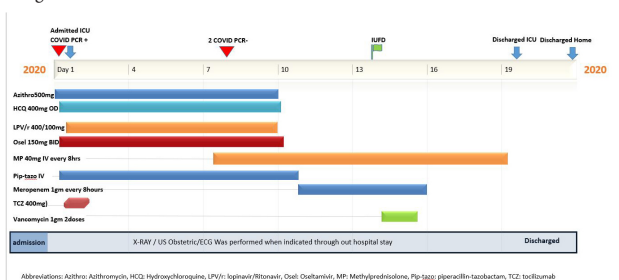


Figure 1. Case 1 treatment timeline. Abbreviations: Azithro: Azithromycin, HCQ: Hydroxychloroquine, CQ: Chloroquine, LPV/r: lopinavir/Ritonavir, Osel: Oseltamivir, MP: Methylprednisolone, Ampic-sulb: Ampicillin-sulbactam, TCZ: tocilizumab



**Results.** Learning points: Tocilizumab use in pregnant patients with severe COVID-19 pneumonia during the second trimester improved maternal outcomes in

our cases. Tocilizumab use may be associated with worse fetal outcomes, including intrauterine fetal demise (IUFD).

Demographics	Case 1	Case 2
Age (years)	24	39
Ethnicity	Qatari	Filipino
Gender	Female	Female
Pregnant	20 Weeks	23 Weeks
Parity	G4P3	G2P1
Previous deliveries	H/O of 2 LSCS	Vaginal delivery
Comorbidities	Gestational diabetes diet controlled, H/O Asthma	None
<b>Clinical features on admission</b>		
Duration of symptoms (Days)	3	7
Diagnosis (LRTI, URTI)	LRTI	LRTI
Temp °C	38.2	37.2
BP (mmHg)	80/54	108/62
RR (breath/min)	20	24
HR (beat/min)	119	70
O2 saturation in ambient air	99%	84%
<b>Laboratory results on admission</b>		
White blood cell count (cells per 10 <sup>6</sup> /L)	5.6	13.7
Lymphocyte (cells per 10 <sup>6</sup> /L)	1.6	1
Platelets (cells per 10 <sup>6</sup> /L)	248	345
LDH (U/L)	NA	323
C-reactive protein (mg/dL)	32	151.2
D-dimer (ng/mL)	1.39	0.97
Ferritin (ng/mL)	198	472
Procalcitonin (ng/mL)	0.02	0.12
Severity of ARDS on admission	Severe pneumonia	Severe ARDS
<b>Culture</b>		
HVS	Candida sp.	NA
Sputum	NA	Klebsiella pneumoniae, steno.maltophilia
<b>Virology</b>		
SARS-COV-2 PCR	Positive	Positive
<b>Treatment</b>		
Antivirals	HCQ, CQ, Osel, Azithro	HCQ, Osel, Azithro
Antibiotics	Ceft, Ampic-Sulb	Pip-tazo, Mero, Ampic-Sulb, Sulfa-trim
IL-6 inhibitor	TCZ	TCZ
Steroid	MP	MP, Hydrocortisone, Betamethasone
Vitamins	Folic acid, iron, Multivitamins	Multivitamins
<b>Outcomes</b>		
Pregnancy outcome	NA	Lung fibrosis, discharged
Mode of delivery	not delivered yet	Vaginally
Neonatal outcome	NA	IUFD

Figure 3. Table of clinical characteristics, pregnant outcomes. Abbreviations: LRTI: lower respiratory tract infection, HCQ: Hydroxychloroquine, CQ: chloroquine, Osel: Oseltamivir, Cef: Ceftriaxone, Ampic-Sulb: ampicillin-sulbactam, Azithro: Azithromycin, TCZ: tocilizumab, MP: methylprednisolone, H/O: History of, LSCS: C-section, NA: not available. Pip-tazo: Piperacillin-tazobactam, Mero: Meropenem, Sulfa-trim: Sulfamethoxazole-Trimethoprim, IUFD: Intrauterine fetal death.

**Conclusion.** The pharmacological management of pregnant patients with severe COVID-19 pneumonia poses significant challenges. The use of Tocilizumab may improve maternal outcomes but may also increase the risk of worse fetal outcomes. Caution should be exercised in using this agent, and risks and benefits should be discussed with the patients.

**Disclosures.** All Authors: No reported disclosures

### 563. Experience of a Private Hospital in the Treatment of COVID-19 Pneumonia in Veracruz, Mexico

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**Session:** P-24. COVID-19 Treatment

**Background.** Large mortality rates have been reported in the Mexican public health system, however in the experiences of private hospitals that have resources and infrastructure this is lower compared to the national average.

**Methods.** Descriptive and retrospective study. Adult patients treated for pneumonia due COVID-19 from April to December 2020 are entered into the study. Its general characteristics such as gender and age, comorbidities, influenza vaccination history, clinical characterization, laboratory and tomographic diagnosis of sars cov2 pneumonia are studied, as well as the drug and oxygen therapy treatments received and finally, its evolution and clinical outcome.

**Results.** 132 patients were studied, of which 51% were female. The main age groups affected were 65 and over (43.9%), 50-59 years (20.4%) and 25-44 years