Emergency Available Drugs in Markets to Treat COVID-19

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Method Article

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Abstract

Our current study is focused on emergency available drug in market to treat COVID-19 a viral infection that produces pneumonia and respiratory disorder. By pharmacology knowledge base treating viral-respiratory infection and immune inflammation, which posses’ direct effect against corona virus (COVID-19) the different antibiotics were evaluated from market on COVID-19 symptoms which includes Provas 100ml, Injections: Azithma 500mg, Oxidil 1gm, Gen-M 180mg and Bejectal. The Pladex 100ml, Infusion R/L 500ml, Tablet Panadol Extra, Syrup Pelton – V and Capsule Vibramycin in laboratory CatA21 (LRHP1) and CatB20 (AMCMDN2) for 1 to 3 days treatment and the Patients ages range from 37-56 and their recovering ratio calculated from the laboratory test by immune system and physical health comparison which were recorded as 95% with positive rate with a good health.

1. Introduction

The viral-infection transmission reported at the end of December-2019 in Wuhan City China affecting Humans immune system and migrated from one person to another with a number of severe infections called the Corona Virus Infection [1]. This viral infection spread very rapidly across the china and multiplied in number in a very short time and migrated to other country by person migration. The WHO (World Health Organization) director general declared on January 30, 2020 that corona virus outbreak, health safety and emergency are recommended under the international health regulations [2]. On February 2, 2020 the China NHC (National Health Commission) reported about 304 deaths in a total of 14,488 cases in china and from other country total 146 cases confirmed with death number 1. The viral infectious disease transmission is still continuous and affected throughout the world a large number of countries. It’s necessary to highlight the control of this viral-spread by any synthetic or natural therapeutic agent with proper attention by people isolation from affected people, social distancing, avoid hand shaking, wearing masks and doing proper sanitization at high risk at both positive and negative stage because any suitable drug-discovery and treatment need some specific time. So, proper care is required during this outbreak because there are no such effective Corona-Virus vaccines or, antiviral drug available. However, SARS (Sever Acute Syndrome) 2003 Outbreak was controlled via Traditional Chinese Medication [3]. The Chinese Government noticed the sign and symptoms of viral-pneumonia and administrated herbal medication by applying full-literature during the outbreak of SARS (Sever Acute Syndrome) may it contain direct anti-viral effect and provide a great help in medication and targeted corona viral compound [4-12]. The studies highlighted the number of basic protein in this virus like Spike, 3CLprot (3C Like Protease) and PLprot (Papain like Protease) provide help in replication. The Virus enzyme deubiquitinating and polypeptide protein do the Ub (Ubiquitin) system elimination for host mostly carried out by PLprot in Virus. While [13, 14] reported in SARS (Sever Acute Syndrome) that PLprot declined the UB-like proteins: ISG15 and Connects LYS58 with Poly-Ub chain by releasing the DIUbLys48 product. The [15] studies that 3CLprot provide help in life cycle of Virus by acting as Cysteine-Protease while Spike protein in corona-virus maintain them in the cell by utilizing converting enzyme-II
angiotension [16]. The discovery of targeted drug designing might be easy from protein analysis as of direct inhibition potential if found as in SARS protein comparative in Corona-Virus [17-23]. While study [24, 25] reported that SARS (Sever Acute Syndrome) and MERS (Middle East Respiratory Syndrome) Corona-Virus are very closed in protein gene sequencing so, for this viral-pneumonia infection treatment should be design by applying comparative knowledge of the SARS and MERS in a very short time for treatment of Corona-Virus 2019 [26-28]. Our current study is focused on emergency available drug in market to treat COVID-19 a viral infection that produces pneumonia and respiratory disorder by utilizing various antibiotics experimentally for treatment.

2. Methodology

This Experimental workup/setup conducted from two different hospitals laboratories registered under Government of Pakistan. A surveyor type treatment prescribed/provided to the patients possesses COVID-19 symptoms. The patients were categorized in two categories that is CatA21 (Category A having 21 people from different areas and ages) in Laboratory Leading Reading Hospital Peshawar 1(LRHP1) and CatB20 (Category B having 20 people from different localities with different ages) in Laboratory Amad Medical Center Mardan 2(AMCMDN2). The patients were screened in laboratory through proper channel after physical and mental analysis by the Physician Dr. Muhammad Amad Zaman Khan MBBS (KMU Peshawar), MCPS (Pak), FCPS I-II (LRH Peshawar) and specialist in TB, Fever, Malaria, Blood Pressure and other Health related sever infectious diseases.

3. Tested Drugs On Patient Cata21 And Catb20

Antibiotics Includes Provas 100ml, Injections: Azithma 500mg, Oxidil 1gm, Gen-M 180mg and Bejectal. The Pladex 100ml, Infusion R/L 500ml, Tablet Panadol Extra, Syrup Pelton – V and Capsule Vibramycin all the drugs were recommended of standard Multinational ISO-Certified Companies.

4. Experimental Treatment

The Proper Medication administrated to the patients in both CatA21 in LAB LRHP1CatB20 in LAB AMCMDN2 for regular 1 to 3 days. On first day the Infusion Provas first dose started, the antibiotics Injection Azithma 500mg in 100ml Pladex diluted IV, the Injection Oxidil 2gm first in start, and the Injection Gen-M 180mg diluted in 100ml Pladex given after regular sequence. The Infusion R/L 500ml mixed with Injection Bejectal with low concentration also given with the passage of time. The tablet Pandaol extra given to relief pain after antibiotics 1–2 hrs and syrup Pelton – V administrated for appetite and vomiting relevance with the capsule Vibramycin 100mg to relief the infections. The same doses as in start of days first repeated on day 2 and day 3 but only the infusion R/L and Injection Bejectal was eliminated in that case when the patient recovered 75% and feel safe only.
5. Statistical Analysis Of Recovered Patients By Age

The different Patients engaged during the experimental analysis were from different area of Khyber Pakhtunkhwa, Pakistan. Their ages range from 37–56 and their recovering ratio calculated from the laboratory test by immune system and physical health comparison which were recorded as 95% with positive rate with a good health.

6. Results And Discussion

Antibiotics Includes Provas 100ml, Injections: Azithma 500mg, Oxidil 1gm, Gen-M 180mg and Bejectal. The Pladex 100ml, Infusion R/L 500ml, Tablet Panadol Extra, Syrup Pelton – V its composition and ingredient is listed in the Table 1. The Proper procedure followed for the patients in both CatA21 in LAB LRHP1CatB20 in LAB AMCMDN2 for regular 1 to 3 days as mentioned in Table 2 and Table 3. On first day the Infusion Provas first dose started, the antibiotics Injection Azithma 500mg in 100ml Pladex diluted IV, the Injection Oxidil 2gm first in start, and the Injection Gen-M 180mg diluted in 100ml Pladex given after regular sequence. The Infusion R/L 500ml mixed with Injection Bejectal with low concentration also given with the passage of time different Patients engaged during the experimental analysis were from different area of Khyber Pakhtunkhwa, Pakistan. Their ages range from 37–56 and were noticed as 95% positive rate with a good health recoded with these antibiotics. The general discussion on these antibiotics and their importance are as follows: The antibiotics include Oxidil injection 1gm/IV having chemical composition of Ceftriaxone Sodium a Cephalosporin. It is highly effective for the treatment of several bacterial infections such as, lower respiratory tract infection, pneumonia, prevent infection in several surgeries, meningitis, and sever threatening E. coli and urinary tract infection. The Gen-M injection 180mg (60mg + 120mg) in Artesunate is mostly used for treatment of malaria a pediatric patients in adult commonly with the other indication including, dizziness, fever, weakness, chills, loss of appetite. The Azithma injection 500mg in (Lyophilized powder for IV only) in Azithromycin antibiotics is very common and administrated for treatment of chest infection, like pneumonia infection in throat, nose, sinus infection as sinusitis, Lyme diseases and skin infection. The Tablet Panadol Extra 500mg contains Paracetamol 500mg and Caffeine 65mg. It is orally administrated to relief the pain, including in rheumatic, muscles, period, headache and backaches pain having less side effect and does not irritated the stomach.
**Table 1**  
Available drugs administrated during Tests with its Chemical Composition.

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Available Drug</th>
<th>Composition</th>
<th>Insertion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Provas Infusion</td>
<td>Paracetamol 1g/100ml</td>
<td>I.V only</td>
</tr>
<tr>
<td>2</td>
<td>Azithma Injection</td>
<td>Azithromycin 500mg (Lyophilized Powder)</td>
<td>I.V only</td>
</tr>
<tr>
<td>3</td>
<td>Oxidil Injection</td>
<td>Ceftriaxone Sodium 1gm</td>
<td>I.V only</td>
</tr>
<tr>
<td>4</td>
<td>Gen-M Injection</td>
<td>Artesunate 60mg + 120mg (180mg)</td>
<td>I.V/IM</td>
</tr>
<tr>
<td>5</td>
<td>Panadol Extra Tablet</td>
<td>Paracetamol 500mg; Caffeine 65mg</td>
<td>Orally administrated</td>
</tr>
<tr>
<td>6</td>
<td>Pelton – V Syrup</td>
<td>Domperidone Maleate 120ml</td>
<td>Orally administrated</td>
</tr>
<tr>
<td>7</td>
<td>Infusion R/L</td>
<td>Fluid 500ml</td>
<td>For Injection I.V only</td>
</tr>
<tr>
<td>8</td>
<td>Bejectal Injection</td>
<td>Vitamin Supplement</td>
<td>Injection I.V + Infusion</td>
</tr>
<tr>
<td>9</td>
<td>Vibramycin Capsule</td>
<td>Doxycycline 100mg</td>
<td>Orally administrated</td>
</tr>
</tbody>
</table>

The Syrup Pelton – V 120ml is anti-sickness medicine chemically fall in *Domperidone*. It’s mostly administrated for digestive tract movement and regulates the stomach ailments pain and reduced feeling of vomiting and Nausea by capturing the activity of hormones inside the brain. The Infusion R/L (Ringer's Lactate Solution) 500ml commonly called as *Sodium Lactate* and *Hartmann's solution*. It is a short linked fluid used for an electrolyte replacement in low blood pressure and blood volume and is mostly consist of sodium chloride, sodium lactate, potassium chloride and calcium chloride dissolved in water and it basically replenishes the salt and electrolyte level in the body and Acid – Base balance during the treatment. The Pladex 100ml is 5% ingredient of *dextrose* solution help in dilution of intravenous infusion and as carbohydrate.
Table 2
COVID-19 Tested Drug on Patient CatA21 in LAB LRHP1.

<table>
<thead>
<tr>
<th>Day 1–3</th>
<th>Drug Type</th>
<th>Treatments</th>
<th>Dose</th>
<th>Course Time</th>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Infusion</td>
<td>Provas 100ml</td>
<td>Dose</td>
<td>I</td>
<td>CatA21</td>
</tr>
<tr>
<td></td>
<td>Injection</td>
<td>Azithma 500mg Pladex Dose</td>
<td>START</td>
<td>Patient CatA21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Injection</td>
<td>Oxidil 1gm Pladex Dose</td>
<td>I</td>
<td>START</td>
<td>Patient CatA21</td>
</tr>
<tr>
<td></td>
<td>Injection</td>
<td>Gen-M 180mg Pladex Dose</td>
<td>I</td>
<td>START</td>
<td>Patient CatA21</td>
</tr>
<tr>
<td></td>
<td>Infusion</td>
<td>500ml + Bejectal Dose</td>
<td>START</td>
<td>Patient CatA21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Injection</td>
<td>Tablet Panadol Extra Dose</td>
<td>I</td>
<td>START</td>
<td>Patient CatA21</td>
</tr>
<tr>
<td></td>
<td>Syrup</td>
<td>Pelton – V Dose</td>
<td>I</td>
<td>START</td>
<td>Patient CatA21</td>
</tr>
<tr>
<td></td>
<td>Capsule</td>
<td>Vibramycin Dose</td>
<td>I</td>
<td>START</td>
<td>Patient CatA21</td>
</tr>
</tbody>
</table>

It is administrated in severe pain in chest, circulation problems that causes stroke and it’s a platelet inhibitor reduces chances of platelets clumping and prevention of blood.

The injection Bejectal 1Ampox10ml having composition of vitamin B6, vitamin B2, Vitamin B1, Benzyl alcohol, Nicotinamide, Sodium Sulfide, Sodium Formaldehyde Sulfoxylate and D-Sodium Pantothenate is used during vitamin B2 deficiency, diarrhea, thiamine deficiency, heart problems, eye disorder and migraine headache. Injection works by metabolizing carbohydrate thus maintains normal growth maintaining tissues of the body to prevent vitamin B2 deficiency, it help tissue in respiration and metabolism of fats, protein thus lowers blood cholesterol by inhibiting the synthesis of LDL; producing antibodies and hemoglobin by keeping blood sugar level in normal range; preventing lice from breathing.

The antibiotics Vibramycin (Doxycycline) 100mg capsule commonly called tetracycline antibiotics it help us in treatment of several bacterial infection and prevention of malaria mainly it stop bacterial growth and bacterial infections such as gonorrhea, gum-disease (periodontitis), blemishes, bumps, Chlamydia and urinary tract infections. So after proper experimental analysis these medications is might help in course of treatment for corona-virus 2019 and is easily accessible in market to used as a first dose during symptoms of corona-virus (COVID-19).
Table 3
COVID-19 Tested Drug on Patient CatB20 in LAB AMCMDN2.

<table>
<thead>
<tr>
<th>Day 1–3</th>
<th>Drug Type</th>
<th>Treatments</th>
<th>Dose</th>
<th>Course Time</th>
<th>Patient CatB20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusion</td>
<td>Provas 100ml</td>
<td></td>
<td></td>
<td></td>
<td>CatB20</td>
</tr>
<tr>
<td>Injection</td>
<td>Azithma 500mg</td>
<td>100ml Pladex</td>
<td>- do-</td>
<td>START</td>
<td>CatB20</td>
</tr>
<tr>
<td>Injection</td>
<td>Oxidil 2gm</td>
<td></td>
<td></td>
<td>START</td>
<td>CatB20</td>
</tr>
<tr>
<td>Injection</td>
<td>Gen-M</td>
<td>100ml Pladex</td>
<td>- do-</td>
<td>START</td>
<td>CatB20</td>
</tr>
<tr>
<td>Infusion R/L</td>
<td>500ml + Bejectal</td>
<td></td>
<td>- do-</td>
<td>START</td>
<td>CatB20</td>
</tr>
<tr>
<td>Injection</td>
<td>Tablet</td>
<td>Panadol Extra</td>
<td>- do-</td>
<td>START</td>
<td>CatB20</td>
</tr>
<tr>
<td>Syrup</td>
<td>Pelton – V</td>
<td></td>
<td>- do-</td>
<td>START</td>
<td>CatB20</td>
</tr>
<tr>
<td>Capsule</td>
<td>Vibramycin</td>
<td></td>
<td>- do-</td>
<td>START</td>
<td>CatB20</td>
</tr>
</tbody>
</table>

7. Conclusion

Finally it is concluded that these antibiotics as illustrated above possess such a great potential in emergency case treating Corona-Virus (COVID-19) pneumonia a respiratory viral infection so there consideration and further evaluation are very important to highlight its well known mechanism and actual pathway of the drug with molecular analysis.

Declarations

Acknowledgment

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Funding Statement

Declared None.

Conflict of interest
None

Research Involving Human Participants Ethical Approval:

The research protocol was approved by Laboratory Leading Reading Hospital Peshawar (LRH), and Amad Medical Center Mardan (AMC). All procedures performed in studies involving humans were performed in accordance with the Declaration of Helsinki. All participants and/or legally authorized representatives were provided complete information about the risks and benefits of participation prior to informed consent being obtained. Subjects were made aware that results of the study would potentially be published free of any subject identifiers. We are extremely grateful to our study participants for allowing us to participate in their care, especially during the most challenging of times of great uncertainty during the COVID-19 pandemic.

References


