A SYSTEMATIC REVIEW ON THE USE OF HERBAL MEDICATION USED IN THE COVID-19 PANDEMIC GLOBALLY.

Bradley Beharry, Arlene Bharath, Arun Bissoon, Dexter Blackman, Anderson Boodram, Ashna Buchoon, Amaris Bujhawan, Kashief Campbell, 1Rajiv Dahiya.

1School of Pharmacy, Faculty of Medical Sciences, The UWI

c: ashna.buchoon@my.uwi.edu  rajivdahiya@sta.uwi.edu

INTRODUCTION

• COVID-19 has impacted the lives of many people around the world with it being declared as a global pandemic in March 2020 and a serious threat to health.

• Ayurvedic and Chinese nutraceuticals have been used by people of India and China for thousands of years and is one of the world’s oldest medical applications to date.

• According to the University of Texas El Paso or UTP, The use of herbal medication is also highly involved in the United States, with “About one third of the adult U.S. population medicinal herbs as some form of alternative therapy”.

• According to Martins Ekoe in a frontiers in pharmacy publication, he discussed that Parts of Europe also use herbal medication to treat various illnesses with impressive figures such as in Belgium and France at 38% and 75%, respectively

• These astounding figures show the increasing interest in herbal medications even in countries where Western medicine is prioritized. It is no doubt because of this growing interest that COVID-19 has been approached in many studies from a herbology perspective for treatments and methods of prophylaxis.

OBJECTIVE

• To systematically review the use of herbal medication worldwide against fever, fatigue, cough and other symptoms of COVID-19.

METHODOLOGY

• Using the PRISMA framework, keywords such as ‘Ayurvedic’, ‘herbal medication’ and ‘COVID-19 pharmacological alternatives’ were entered into various search engines.

• The group manually sifted through relevant medical databases such as MEDLINE, PUBMED and various clinical trial registries.

• We employed a systematic random sampling where each research paper, journal, text, publication studied was treated as a participant.

• Inclusion criteria - literature satisfying our inclusion criteria of the keywords as ‘Ayurvedic’, ‘herbal medication’ and ‘COVID-19 pharmacological alternatives’.

• Exclusion criteria – literature focusing on Western drugs as COVID-19 therapy.

• The software ATLAS TI created results that were portrayed on various network visualizations such as graphs, such as, bar charts, pie charts and pictograms.

RESULTS

STUDIES TO CHOOSE THE HERBS UTILIZED BY SEVERAL COUNTRIES IN THE TREATMENT OF COVID-19

TABLE 1: SHOWING THE MOST EFFECTIVE HERBS USED IN CHINA

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allicin sulfuride</td>
<td>Garlic</td>
</tr>
<tr>
<td>Andrograhis paniculata</td>
<td>Green Chiretta</td>
</tr>
<tr>
<td>Echinacea angustifolia</td>
<td>Purple Coneflower</td>
</tr>
<tr>
<td>Magnolia officinalis</td>
<td>Horse Magnolia</td>
</tr>
<tr>
<td>Periandra sylvatica</td>
<td>Black Geranium</td>
</tr>
<tr>
<td>Salvia</td>
<td>Willow</td>
</tr>
<tr>
<td>Zizyphus</td>
<td>Ginger</td>
</tr>
</tbody>
</table>

TABLE 1: SHOWING THE MOST EFFECTIVE HERBS USED IN INDIA

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curcuma longa</td>
<td>Turmeric</td>
</tr>
<tr>
<td>Andrograhis paniculata</td>
<td>Green Chiretta</td>
</tr>
<tr>
<td>Echinacea angustifolia</td>
<td>Purple Coneflower</td>
</tr>
<tr>
<td>Curcuma longa</td>
<td>Turmeric</td>
</tr>
<tr>
<td>Zizyphus jujube</td>
<td>Jujube</td>
</tr>
<tr>
<td>Cordia myxa</td>
<td>Asparagus Plum</td>
</tr>
</tbody>
</table>

DISCUSSION

• India

- India has recommended Gudivatcha (Tinospora cordifolia), Green Chiretta (Andrograhis paniculata) which treats fever, Quince (Cydonia oblonga) which treats sinus symptoms, Jujube (Zizyphus jujube) which aids in nausea and vomiting and Assyrian Plum (Cordis myxa).

- Seaside oil (Anu thaliam) is used in the form of nasal drops to treat sinus symptoms. Curcumin also has a positive effect on relieving COVID-19 related inflammatory response due to the antiviral activity that curcumin exerts on enveloped viruses (including SARS-CoV-2) through “direct interaction with viral membrane proteins; disruption of the viral envelope; inhibition of viral proteases; induce host antiviral responses.”. Curcumin has also been seen to be safe in most healthy individuals making it an exceptional therapeutic candidate for COVID-19.

• China

- China, Andrograhis paniculata was also used in treating fever along with Milkvetch (Astragalus mongolicus) liquorice (Glycyrrhiza glabra L.) and siber (Sophorahokivs divaricate). Purple Coneflower is known to be used in treatment of bronchitis, coughs, the common cold, upper respiratory infections together with Garlic and Ginger, all of which were recommended in China to help fight the virus and reduce the time of hospitalization.

• Europe

- Europe has also made use of St. John’s Wort, and Ginger in their treatment of COVID-19. They also frequently used peppermint, chamomile, sage, eucalyptus, onion, valerian, stinging nettle, Aloe vera and arnica.

CONCLUSION

• Efficient herbal treatments were found to contain phytochemical constituents such as alkaloids, flavonoids, terpenoids, phenols, polyphenols, tannins, saponins, polysaccharides, lipids, proteins and peptides allowing for the management of fever, cough, chest pain, discouraging fatigue and increases the encourages white blood cell count.

• These drugs are seen to be those with antipyretic, anti-inflammatory, expectorant, anti-asthmatic, antitussive and antiviral properties which reduce the invasion, penetration, reproduction and expression of the virus.

References


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