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Animals use to enhance immunity during a COVID-19 Pandemic-a mini review

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SUMMARY

For the treatment of pandemic disease caused by coronavirus; effective medicines and treatment strategies are required but for that purpose sufficient time and economic support is needed. Pandemic in the world is neither spread for the first time nor even for last. Human race had made sufficient effort and experience for survival. Human can't fight against pandemic without utilizing epidemiological knowledge and protective measures. Medicinally important already known fauna that use in the whole world containing antioxidant, anti-inflammation, immunologically booster as well as antiviral effectiveness are discussed in this study. To boost immune system comprehensive focus is required on hygienically effective food and positive emotional support is required. During current pandemic sufficient critically effective information from different research areas is required to defeat upcoming pandemics.

Keywords: Zoonotic disease, COVID-19, SARS-CoV-2

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INTRODUCTION

A specific type of pneumonia caused by a virus was reported in Wuhan, China during last months of 2019 that might be shifted from wild animals to human being and then from human to humans. Detected reason was SARS-CoV-2 that was different and new coronavirus having phylogenetic similarity with SARS-like corona viruses as reported by Altaf (2020). This pandemic was reported with unique muted type of coronavirus (SARS-CoV-2). Jiang *et al.* (2020) and Xu *et al.* (2020) reported that firstly found pathogen Sars-CoV-2 phylogenetically belong to SARS-CoV. Wu *et al.* (2020) found difference between SARS and SARS-CoV-2 that 380 amino acid phylogenetic variation that might has caused variation in pathogenic and functional effect of SARS-CoV-2. Paraskevis *et al.* (2020) confirmed with proof that SARS-CoV-2 is not genomic mosaic form with *Betacoronavirus.* Genomes of virus specify virulence in humans.

Evolutionary record depicts that fauna has been reported several times as reservoir for novel zoonotic infections spread effecting humans (Kruse *et al.*, 2004). Childs *et al.* (2007) documented that in wild animal viruses develop and then by wild

fauna infect human and then transmit from human to humans. In traditional medicines animals used to extract compounds that assist to enhance affectivity against viral infections. Traditional medicines practicing tried to find animal that can work against SARS-CoV-2 infection. They took trials on variety of ethnomedicinally important animals for treatment and prevention of SARS-CoV-2 infection (Altaf, 2020; Pieroni *et al.*, 2020; Sustainability-Time, 2020; National-Geographic, 2021).

METHODS

Data was recorded from January to March, 2021 and from 2015 to 2021 published articles were used in literature. For cross confirmation articles from published data were used. Multi-query search strategy was used. After qualitative evaluation of several results obtained from many searches passes summative result was documented.

RESULTS AND DISCUSSION

In pandemic researchers and scientists have been working to find ways to take care of human population. From pandemic aspect they found sources that can inactivate viral infection by use of natural compounds extracted from ethnomedicinal animals (Pieroni *et al.*, 2020; Sustainability-Time, 2020; National-Geographic, 2021). Second goal was to strengthen antiviral immune response by healthy nutrition include extracted supplements from animals that has ability to prevent or decrease SARS-CoV-2 and similar infections in human. Antiviral effectiveness potential from animals extracted compound has been reported. During pandemic caused by SARS-CoV-2, ethnomedicinal practitioners experienced large number of trials on animal parts (Altaf, 2020; Sustainability-Time, 2020; National-Geographic, 2021). Environmental Investigation Agency especially working for prevention of environment crimes states that Laos and China where illegal wildlife trade has been done are making efforts to reduce worldwide fears linked to spread of this viral infection by using rhino horns and other endangered animal parts in quack remedies (Sustainability-Time, 2020).In duration of less than a month after taking steps to ban illegal trade and consumption of live wild animals as food Chinese offered bear bile injection for treatment of COVID-19. In published list by China National Health Commission on March 4 its recommended treatment for both traditional and Western against coronavirus infection. These recommendations depict that wildlife advocates focus concerned to wild fauna use is contradictory on one side they are concerned to ban and prevent live trade of animals for food on the other hand enhancing trade of animal parts (National-Geographic, 2021). Bees give honey, meat obtained from cow, buffaloes, goat, sheep and fish improves immune system for COVID-19 (Pieroni *et al.*, 2020).

Table 1: Parts of animals and plants used to treat coronavirus.

Names	Part used	Description	References
Fishes	Soup	Enhance immunity against COVID-19	(Pieroni *et al.*, 2020)
Buffaloes *Bubalus bubalis*	Soup	Enhance immunity against COVID-19	(Pieroni *et al.*, 2020)

Cows *Bos taurus*	Soup	Enhance immunity against COVID-19	(Pieroni *et al.*, 2020)
Ursidae Bears	Bile	Inhibits coronavirus	(National-Geographic, 2021)
Rhinocerotidae Rhinos	Horn	Inhibits coronavirus	(Sustainability-Time, 2020)
Goat *Capra aegagrus hircus*	Soup	Enhance immunity against COVID-19	(Pieroni *et al.*, 2020)
Sheep *Ovis aries*	Soup	Enhance immunity against COVID-19	(Pieroni *et al.*, 2020)
Horses (*Equus* spp.)	Hairs and furs	Antiviral	(Bullitta *et al.*, 2018)
Apis spp. Honey bees	Bee sting, honey	Inhibits coronavirus	(Pieroni *et al.*, 2020; Garvey, 2021)

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