BOMRIM

Bulletin on Microvita Research and Integrated Medicine

Vol.12 **No.1** **April 2020** **ISSN 2321 - 2349**

Contents:

सम्पादकीय

कोरोना- भूमा मन की करुणा !

सम्पूर्ण सृष्टि भूमा मन में स्थित है। भूमा मन अपने अथक प्रयास से इस सृष्टि का सुंदर रूप से संचालन कर रहे हैं । उनके लिए सृष्टि के प्रत्येक अणु का चिंतन उनका दायित्व है । एककोषीय जीव से लेकर बहुकोषीय विकास तक, पेड़-पौधे, लता-गुल्म, पशु-पक्षी और मनुष्य तक की उन्नति और अग्रगति के लिए उन्होंने व्यवस्था की है । वनस्पतियों के लिए जल, वायु, प्रकाश और खाद की व्यवस्था; पशु पक्षियों के लिए भोजन, पानी तथा आवास की व्यवस्था और मनुष्य के लिए न्यूनतम आवश्यकताओं की पूर्ति का पूरा प्रबंधन चैतन्य सत्ता ने सुचारू रूप से कर दिया है।

मनुष्य, प्रकृति के विकास क्रम, प्रतिसंचर धारा के प्रवाह में सबसे उच्च स्तर पर पहुँच चुका है, परन्तु उसने भूमा मन की इस सुव्यवस्था को अपने स्वार्थ हेतु छिन्न -भिन्न कर दिया है। 'आधुनिकीकरण के पागलपन में' उसने इस सृष्टि की सुंदर संरचना के साथ खिलवाड़ किया। पर्वतों को काट डाला, जंगलों को बेरहमी से नष्ट किया, और निरीह पशु पक्षियों और जलचरो का संहार अपने भोजन हेतु किया। व्यक्तिगत जीवन को मात्र यंत्रवत बना दिया। मनुष्य मात्र मशीन बनकर रह गया जो शक्ति संचय के लिए खाता है, काम करता है, सोता है और यही चक्र चलता रहता है। पृथ्वी को खोद कर भारसाम्य को असंतुलित किया, जंगलों को काट दिया जिससे कई दुर्लभ वानस्पतिक प्रजातियाँ नष्ट हो गई, कई पक्षी जो उस पर निर्भर थे, विलुप्त हो गए या होने की कगार पर हैं। प्रकृति को नष्ट कर कंक्रीट के जंगल खड़े कर दिए। औद्योगिकीकरण के कारण कार्बन उत्सर्जन में वृद्धि हुई, पर्यावरण इतना दूषित हुआ कि सांस लेना भी दूभर हो गया, प्रकृति की मधुर छटा को काले कोहरे ने ढक दिया। प्रकृति के प्रबंधन में इतना हस्तक्षेप क्या वह सत्ता बर्दाश्त करेगी जिस पर सम्पूर्ण सृष्टि के नियंत्रण का भार है? इतना ही नहीं स्वयं मनुष्य के जीवन का क्षेत्र समय, स्थान और स्वयं के दायरे में आकर सिमट गया। मैं (व्यक्ति) यहाँ (स्थान) और अभी (समय) की परिधि में बंध कर जीवन की विस्तृत परिधि को 'स्वयं-केन्द्रित' कर दिया और वैश्विक बंधुत्व का गला घोट दिया । संपूर्ण संसार 'नीरीश्वर मानवता' बन कर जड़ प्रधान हो गया। मरते हुए जानवरों की कराह को हमने अनसुना कर दिया । व्यक्तिगत स्वतंत्रता के नाम पर मानव जीवन के नैतिक मूल्यों को समूल नष्ट कर दिया। मनुष्य पशुओं से भी नीचे गिर गया। पशु तो प्राकृतिक नियमों से बंधा हुआ विकास के राह पर बढ़ रहा है परंतु मनुष्य अपनी सभी सीमाओं को तोड़कर उस स्थिति में पहुँच गया जिसे पशु भी नहीं कहा जा सकता।

मानव जीवन का उद्देश्य परमपुरुष की प्राप्ति है और इसके लिए एकमात्र मानसाध्यात्मिक साधना का पथ ही है जिसे मनुष्य ने अपनी मानसिक अधोगति के साथ ही भूलना और विपरीत दिशा में चलना शुरू कर दिया। सृष्टि कर्ता का भूमा मन क्या इन सभी भौगोलिक, मानसिक और आध्यात्मिक अवहेलनाओं को स्वीकार करेगा? कदापि नहीं। कहा जाता है कि कसाई घरों में मरते समय जानवरों की चित्कार ध्वनि ब्रह्मांड में चिन्हित होती है। उस आर्तनाद के कम्पन्न भूमा मन में विकृति पैदा कर देते हैं और उसका प्रतिप्रभाव तो होना ही है। क्या उस चित्कार को भूमा मन नकार सकता है? पृथ्वी को नष्ट कर इसे जीवों के रहने लायक ना रख कर दूसरे ग्रहों पर सभ्यता का विकास करने में अरबों रुपए नष्ट कर अपने आप को सृष्टि का निर्माता समझने के विचार से क्या प्रकृति सहमत होगी?

इन्हीं सभी के आर्तनाद से, जीवों को अपने स्वार्थ हेतु मारने के समय उनके कराहने की ध्वनि, कटते पेड़ों के कष्ट की कराह के तन्मात्र, धरती को उजाड़ने का प्रयत्न, प्राकृतिक नियमों का उल्लंघन, मानसिक संकुचन, ईश्वर-विहीन मानवता का उद्भव और आधुनिकीकरण के पागलपन से ग्रसित अपनी सृष्टि, अपनी संरचना के कष्टों ने भूमा मन को विवश किया कि, वे अपनी करुणा धारा के माध्यम से ऐसा कुछ करें कि इस पृथ्वी पर उसके सबसे उन्नत प्राणी मनुष्य एक नूतन मानव समाज, एक नव्य-मानवतावाद की विचारधारा की ओर त्वरित गति से अग्रसर हो।

कोरोना ने मनुष्य तथा उससे संबंधित सामाजिक आचार-विचार, आर्थिक, शैक्षणिक, आमोद-प्रमोद आदि के अतिरिक्त किसी भी अन्य जीवन क्षेत्र में अपना कहर नहीं दिखाया। मनुष्यों में भी जो प्रकृति से दूर हो गए, अप्राकृतिक विधि-विधान में व्यस्त रहे, जहाँ पशु-पक्षियों, सरीसृप और कीट-पतंगों तक को अपना भोजन बनाने में कोई कसर नहीं रखी, जहाँ खेतों में अनाज पैदा कर मनुष्य को नहीं वरन पशुओं को खिला, मोटा-ताजा बनाकर तत्पश्चात उनको उनके मांस का भक्षण हेतु व्यापार कर पैसा कमाना ही जिनके जीवन का लक्ष्य बन गया; जहाँ जीवन में नैतिकता ने दम तोड़ दिया, पारिवारिक संबंध छिन्न-भिन्न हो गए; संक्षेप में कहा जाए कि जहाँ सभी कुछ अप्राकृतिक, अव्यवहारिक और अनैतिक हुआ, भूमा मन की चिंतन धारा के विपरीत हुआ, वहाँ कोरोना ने अपना रूद्र रूप दिखाया।

सरल हृदयी, इश्वरोन्मुखी, धार्मिक, नैतिक, भक्तगण जिनके मन ने वृहत के आह्वान-नव्यमानवतावाद के गान को सुना, सराहा और अनुगमन किया, वे सभी कोरोना महामारी के दंश से आपेक्षिक तौर पर बचे रहे। क्या यह भूमा मन की करुणा नहीं? भविष्य में भी यही होगा। मनुष्य को समझदारी से अथवा थक हार कर उस पथ पर चलना ही होगा जिस पर परम चैतन्य सत्ता का भूमा मन ले चलना चाहता है।

संक्षेप में भूमा मन की करुणा, कोरोना के माध्यम से सभी पर बरस रही है। जो प्रताड़ित और काल ग्रस्त थे, जो अवहेलित थे, उन पर तो है ही और उन्हीं के लिए ही तो है; लेकिन कोरोना के द्वारा जिन पर शारीरिक और मानसिक आघात हुआ है उनको भी शारीरिक, मानसिक और आध्यात्मिक घात-प्रतिघात से भूमा मन के निकट आने का अवसर मिलेगा। जीवन की नई राह पर चलने का शुभ अवसर व नूतन विचारधारा पर मंथन करने का स्वर्णिम अवसर भी मिलेगा। मनुष्य भौतिकता की भागदौड़ से आगे बढ़कर मानसिक क्षेत्र में अग्रसर होगा और अंत में आध्यात्मिक जगत में अपने आप को प्रतिष्ठित करेगा। कहा जाता है कि परमपुरुष की कृपा का एक कण भी मिल जाए तो मनुष्य धन्य हो जाता है। यह तो उनके द्वारा कृपा और करुणा की वर्षा है। संपूर्ण मानवता को नवीन सामाजिक संरचना की ओर बढ़ने का स्वर्णिम सुअवसर है।

कोरोना (ऋणात्मक अणुजीवत) के द्वारा करोड़ों लोगों की मृत्यु और कुछ नहीं मात्र मनुष्य की विनाशकारी चिंतन प्रवाह से प्रभावित जीव जगत के कष्टों से द्रवीभूत होकर उन पर भूमा मन की करुणा वर्षा है। कोरोना द्वारा मृत्यु के भय ने लोगों के मानसिक और आध्यात्मिक जगत में एक नए चिंतन का सूत्रपात किया है। अवश्य ही इसके बाद एक नूतन सामाजिक संरचना का विकास होगा, एक नवीन मानसाध्यात्मिक अनुशीलन का प्रयोजन होगा और एक नए आचरण-सम्मत दर्शन का विकास होगा। कहा जा सकता है कि उपरोक्त सभी ऋणात्मक अणुजीवत द्वारा प्रदत धनात्मक प्रभाव है। यही है भूमा मन की जीवों पर करुणा, जो उन्हें मानसाध्यात्मिक विकास की डगर पर आगे बढ़ाने में सहायक सिद्ध होगी।

--- डॉ. एस.के. वर्मा

Corona - Towards total unification

A. K. Bhaskar
Department of Physics, College of Commerce, Arts and Science,
Patliputra University, Patna-800020, India
Email: drakbhaskar@gmail.com

Abstract

Nature has been hounded mercilessly and ruthlessly for decades and decades and now it's her turn. Nature's grooming class for whole mankind is on through Corona! We are just mute spectators and only hope is "His mercy". According to microvita theory, virus is a vague term. Any type of virus is in fact negative microvitum, which function on their own through nature and move unbarred. In order to kill it prematurely, the number of positive microvita has to be increased by neo-humanistic thinking, company of good people, and psycho-spiritual practices.

Keywords: Negative microvita, Neohumanism, Psycho-spiritual practice

Corona the Nature's Messenger

In this modern era of 21st century, nobody on the planet has ever dreamed of such an unprecedented situation, in which eight billion human populations has been exposed to the same biological danger and threat. Corona has exposed our limitations. It has spared none. All great scientists, economists, sociologists and politicians are mute spectators. They are helpless and hopeless. The fate of Human civilization is at stake. A new paradigm of life is to be formulated beyond existing classical and modern sciences. Metaphysics will have to be incorporated in daily life; otherwise our future is bleak and human existence from the Mother Earth seems to be moving towards total destruction. Present leaderships were blaming population growth and were trying hard to control it forcefully and unethically, but corona has brought all the leaderships of the world together to save the lives of the fellow humans. What a misery!

Nature has been hounded mercilessly and ruthlessly for decades, for centuries by the man. Nature is part and parcel of this Cosmic order and is being guided and controlled by Supreme Cognitive Principle. Emergence of Corona like things was inevitable to check and control the deadly ego, extreme greediness to accumulate wealth, and unmatchable hypocrisy of human beings. It has also lessoned us that greediness and exploitative attitude of ours is responsible for all miseries, anxieties and driven humiliations. Nature is in aggressively destructive mode and at the same time has started restoring and restructuring on her own. *Her grooming class is on!* for all of us in general and particularly for those who boast to be the master of this created universe. In only hardly two and a half months time Nature has settled score by cleaning air and rivers controlling earth's temperature and saved billions of animals and plants.

Corona the disrupter of ego, vanity, avarice and hypocrisy

Intelligentsia are highly egoistic, capitalists suffer from avarice and ruling classes are hypocrites. *"Invisible Hands"* of Adam Smith are preached by capitalists through so-called intellectuals and use them to help win elections for hypocrite politicians. And after coming to power, these three classes of people enjoy everything at the cost of majority of hardworking, hard pressed innocent people, and to rule at their whims they slowly push "*immorality and corrupt practices*" in the system itself. Thus, they corrupt the system and finally corrupt majority of the people and throw them into immoral lifestyle, lavish lifestyle, and sometime push them to lead distracted life. But tiny ''Unseen Entity'' has overtaken the reign of the world in his hands and is hammering the leaderships of all nooks and corners forcefully to go for immediate replacement of "*Invisible Hands*". These factors are solely responsible to create the negativity in the Earth planet and mean-mindedness in the commonality. In Yogic term, we can say that *Ana'hata Cakra* has been polluted which is the store house of twelve propensities that includes ego, avarice, and hypocrisy.

Primarily the role of science is to unfold and unmask the mystery of Nature, but corona took it in the reverse gear and has forced billions of world population to wear mask. What an irony! It's really testing time for the scientists, researchers, policy makers and policy deciders. Nature is now dictating through corona to stick to magnanimity of mind, to embrace even an ant with big heart and have rational behavior with the progeny of the Supreme Progenitor otherwise, they will be flattened forever. Corona has given one more valuable suggestion that taking Nature for granted has enormous costs.

"Social Distancing" is a bad proposition. If things are not driven by sentient forces, social distancing will create havoc. Globalization has certainly diminished the physical distance and enhanced social interaction but has had increased social distancing. Corona has increased physical distance for the time being, but present world leaderships are trying to increase social distancing to satisfy their selfishness, greediness and egos. Warning should be to go for "Physical distancing". Imposing "social distancing", will be enough to break social fabric even after corona.

The social lesson of Covid-19

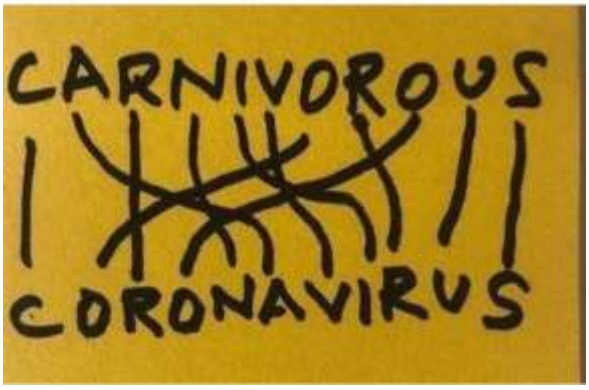
It's time to flatten our ego curve; vanity curve, avarice curve and hypocrisy curve, otherwise get ready for total annihilation of human population from this planet- Earth. In a decade, two to three new diseases take us in the grip. The noumenal cause for disease has not been researched till today. The degree of negativity has increased to such a level; added with polluted earth, polluted air and polluted water, that may happen to be the cause of collective death!

This tiny unseen entity is neither man-made nor genetically transmuted. The behaviour of the virus created in lab can be predicted easily, because programmed virus will show similar behaviour. The behavioral changes of Covid in different regions, variegated functioning in different media, completely negate the hypothesis that it has been created in the Wuhan lab by Chinese virologists. *My understanding is that we are deprived of such power of creation. It is beyond the human's ability to create anything.* Each and every entity

in this universe is the creation of *Prama' Prakrti* (the Supreme Operative Principle) under the dictate of P*urus'a* (the Supreme Cognitive Principle).

Coronavirus v/s Carnivorous

I see some intimate connection between coronavirus and carnivorous. *Rearrangement of letters of carnivorous is exactly coronavirus!!* That is, both are juggled to each other. Vegetarians are less susceptible to this tiny unseen entity. WHO's representative (Gauden Galea) also support this narrative: "As long as people eat meat, there is going to be some risk of infection"



Wuhan can be considered the most negatively charged place in the world due to extremely inhuman food habits and compounded with crude communists' mentality. That's why Corona got attracted first in Wuhan and from there it spread to those places where "invisible hands" were ruling the rust. USA and European countries are the most vulnerable places for such attacks.

Intelligent impact of Covid - 19

One thing I would like to share that among European countries death casualties in Germany is very less in comparison to Italy, France, Spain, and Britain. What may be the reason! The people of Germany, known *Sharmanya Bhu'mi* in Sanskrit also used to practice spiritual cult that has helped in creating positivity. In 2019 Angela Merkel, the German Chancellor banned non-vegetarian food during official meeting might have helped in controlling the Covid's fury! In India the most vulnerable states are Maharashtra, Gujarat and Delhi. These states are the representatives of "hidden hands" whereas the poor eastern states of Bihar, Jharkhand, Orissa, North East states are relatively less affected. West Bengal has a different story - long history of bloodshed during the communist' regime and violent political vendetta till date. So, Bengal has a greater risk than other eastern states of India!! This shows that this tiny unseen entity is bestowed either with evolved conscience; otherwise it is being controlled by some Supreme Entity. Such unseen entity's arrival from one country to other country, from one planet to other planet, is a common practice in the form of Spanish influenza, SARS, AIDS, CORONA, etc.; and throw challenges on varied scale. Sometimes, it comes in passive form, sometimes in mild form, sometimes in aggression, sometimes with extreme aggression. Everybody is in despair, thoroughly confused and only hope is "*His mercy*".

There is something awesome in this commonality of experience. The word "co-operation" within families that had forgotten its meaning is leading a positive lifestyle change. Lockdown has given all of us a great opportunity to listen our inner-selves and hence a boon in disguise. The lockdown has proved to be just the disrupter we needed to establish equilibrium and equipoise in our very unequal lives. Thanks to the lockdown- social hierarchies are getting dismantled and demolished. We can foresee only that everything will

be different. Our social order and structure, the role of capitalism, the global geo-political power relationships, the shifting trends in science and technology, the relationship of human species with natural habitats like animals, birds, plants, and overall the planetary ecosystem.

Corona a Negative Microvitum

In the year 1892, Russian Botanist Dmitri Iwanowsky[1] in his experiment demonstrated the presence of infectious agents. Dutch botanist and microbiologist Martinus Biejerinck[1] in 1898 published his results in which he coined the filtered infectious substance a "virus" because the infectious agent was smaller than bacterium and this discovery is considered to be the beginning of virology. Till today characteristics of virus has neither been understood nor has been characterized and categorized properly by epidemiologists, medical scientists and researchers.

The term 'Virus' is vague as it does not convey the proper meaning. According to microvita theory proposed by Shrii P R Sarkar in His Renaissance Universal Presidential address on December 31, 1986 and published in the book "Microvitum, In a Nutshell" [2], he claims that no living entity such as *virus* is in existence. Virus is a vague term. He says that "*microvitum, is the mysterious emanation of the cosmic factor"* and the smallest living unit. The crude variety of microvita which can be seen under the electron microscope and producing disease can be called negative microvita (NMV). Therefore, all the so called viral diseases known so far are in fact negative microvita diseases. Thus, the question of virus being a living being does not arise. Microvitum is the minutest living entity and has no structure, and characteristically, it travels through inferences – sound, form, taste, touch and smell, whereas other entities cannot move through inferences. NMV will die a natural death after their normal life span. The only way to induce their premature death, is to increase the number of positive microvita (PMV) by good thinking, right thinking, accompany of good people (*satsaunga*) and psycho-spiritual practices – like chanting of *kiirtan* and *bhajan* (devotional song); *a'sanas, pranaya'ma* and meditation.

Concluding remarks

In the last two centuries, we focused on physical body, physical health, physical assets and mental aspects in our theory and practice and intentionally or ignorantly closed the door to spiritual advancement which is *summum bonum* of human life. Human beings, have forgotten that their existence is not only physical and mental but trifarious - physical, mental and spiritual. Unfortunately, the most important element of human wonts –the spirituality or spiritual practices has not been incorporated in their daily practice. It is high time to reset social preamble, tenets of economic principles, postulates of science, philosophy of human life, and to adopt psycho-spiritual way of living for all round development of human society.

References

1. Jain V. 2013. Historical footsteps in search of Viruses. *Bull Microvita Res Integr Med*. 5(1):3-4.

2. Sarkar PR, 2012. *Microvitum in a Nutshell*, 4th edition, Ananda Marga Publication, Kolkata

सामाजिक जीवन की सकारात्मक जंग- कोरोना के संग

श्रुति टण्डन
समाजशास्त्र विभाग, राजकीय मीरा कन्या महाविद्यालय, उदयपुर (राज.)

कोरोना काल हम सभी के जीवन को प्रत्यक्ष और अप्रत्यक्ष रूप से हर पल प्रभावित कर रहा है। एक वायरस के संक्रमण के प्रभाव से लगभग सभी देशों की अर्थव्यवस्था, विज्ञान, शिक्षा, संचार, साहित्य, मनोविज्ञान और सामाजिक व्यवस्था इतनी प्रभावित हो गई है कि अब तो एक नवीन युग से हम सभी का परिचय हो गया है। पर भारत जैसे विविधता में एकता युक्त राष्ट्र ने आध्यात्मिक शक्तियों के संरक्षण में और विज्ञान प्रौद्योगिकी के सहयोग से इस महामारी मे भी समाज को नई राह देने के संकल्प को दोहराया है।

वैश्वीकरण की दौड़ में ना जाने उपभोक्तावाद कब इतना प्रभावी हो गया कि मनुष्य सिर्फ भौतिकवाद तक ही सीमित होकर रह गया। सुबह से लेकर शाम तक हर व्यक्ति अपनी उलझनों में इतना त्रस्त हो गया कि वह खुशियां भी उपकरणों में ही तलाशने लगा। अपनों और अपनेपन को भूलने लगा । पर कहते हैं ना प्रकृति महान शिक्षक है और इसकी शिक्षा हर किसी के लिए अनुकरणीय करनी होती है।

इस संक्रमण ने जब जनजीवन को अस्त व्यस्त कर डाला तो सब का सामना हुआ लॉकडाउन से दुनिया जैसे थम सी गई! सड़कें खाली हो गई! मॉल, ऑफिस, शिक्षा के केंद्र, आर्थिक व धार्मिक संस्थाएं बंद हो गई। जो जहां था वह वहीं थम गया। और फिर शुरू हुई यात्रा - भीतर की ओर लौटने की। चाहे हर्ष में या विषाद में व्यक्ति एक बार तो जरूर मजबूर हुआ कि वह अपने घर लौटे और अपनों के संग इस घड़ी को साथ जिए, आत्मविश्वास को बनाए रखें और संकल्प शक्ति को दृढ़ करें। हालांकि समाज आज भी उपकरणों की महत्ता को स्वीकारता है जो अपनों के बीच की भौगोलिक दूरी को कम करता है और जरूरतमंदों तक मदद पहुंचाने में भी सक्रिय भूमिका निभा रहा है। पर यह काल अपने सामाजिक सरोकारों के लिए भी महत्वपूर्ण है।

लोग पुनः सांस्कृतिक मूल्यों की ओर लौटे। इस काल ने दादी नानी की कहानियों की सीख को दोहराया। पारंपरिक व आधुनिक पाक कौशल दिखाने का मौका दिया। लोगों ने हॉटल एवं रेस्टोरेन्ट के भोजन के बगैर भी घर मे बने भोजन को महत्वता प्रदान की। टीवी पर रामायण और महाभारत जैसे महाकाव्यों ने लोगों को पुनः संस्कार की ओर आमंत्रित किया। डिस्टेसिंग के संग जीने की कला ने सभी को भारतीय सभ्यता और संस्कृति के परिचायक ''नमस्कार और स्वच्छता" के संदेश की ओर आकर्षित किया। प्रकृति संरक्षण में भी इस काल ने महत्वपूर्ण भूमिका निभाई। प्रदूषण स्तर कम हुआ, नदियां अपने मूल स्वरूप में आई, पक्षियों का कलरव चारों ओर फैला। कोरोना वायरस चाहे डॉक्टर, पुलिसकर्मी, सफाईकर्मी हो सभी ने इनके जज्बे को सलाम किया। इस काल में लोगों ने घरों में रहकर भी तीज त्योहारों को अपनी सांस्कृतिक विरासत को संयमित रूप में मनाने का हुनर भी सीखा।

हालांकि बच्चों की पढ़ाई विभिन्न एप्स पर निर्भर हो गई पर साथ ही घर के बड़ों के संरक्षण में उन्हें अधिक समय बिताने का मौका मिला। युवाओं को सकारात्मक सोच के संग आत्मनिर्भर बनने का यह मौका कठिन जरूर है पर यकीनन अपने हुनर को अपनी पहचान बनाने का मंच जरूर प्रदान कर रहा है। लघु उद्योग, कुटीर उद्योग, ग्रामोद्योग की ओर रुझान भी इसी काल की देन है।

समाज पुनः सहयोग, सद्भावना, सहिष्णुता, अनुशासन जैसे मूल्यों के अर्थ को समझ कर सामुदायिक विकास के लिए उन्मुख हो रहा है। प्रशासन और समाज मिलकर यथा योग्य मदद पहुंचाने के लिए एकजुट हो रहे हैं। यह डगर लंबी और कई उतार-चढ़ाव से भरी हुई है पर यदि लक्ष्य महान है, जीतने का विश्वास है तो कोरोना की इस जंग को अवश्य ही जीत जायेंगे। एक नूतन सामाजिक सरंचना का विकास होगा जहाँ मनुष्य स्वयं के लिए ही नहीं औरों के लिए भी जीयेगा।

Dead bodies disposal of Covid-19 patients - Microvitologists' view

S. K. Verma

Dept. of Medicine, Pacific Medical College & Hospitals, Udaipur, India
Email: skvermaster@gmail.com

The last two decades of this century have faced many epidemics of so called viral diseases. Virus is a vague term (Latin - poison). It does not conate that it is the smallest unit, even nor does it convey that virus is a living entity. The great Microvitologist of last century, Shrii P.R. Sarkar while discussing the new concept of microvita; had coined the new term and that is Microvitum (plural- Microvita) – *Micro* means small, *Vita* – vital or living. He stressed that all the viral disease are in fact negative microvita disease[1]. In this context, COVID-19 is also considered to be caused by negative microvita responsible for such pandemic.

As per Microvitology, Microvitum; the smallest living unit cannot be killed or destroyed by any method before its normal life span. They sustain all variations in temperature and barometric pressure and travel through inferences throughout the universe. It is only possible to kill negative microvita or disease producing microvita; if positive microvita devour or eat negative microvita[1]. Corona virus (SARS-CoV-2) enters through nasopharyngeal or oropharyngeal mucosa and then starts replicating.

When the dead body affected by the negative microvita or virus of COVID-19 is burnt, these viruses (negative microvita) of course cannot be killed by heat but they undergo expansion and hibernation and remain inactive and die natural death after completion of their normal life span. Because there is no physical body and no body cells after funeral, there is no environment for their replication and thus the virus is destined for its natural demise. It is interesting to note that in the body of COVID-19 patient, the median duration of viral shedding reported was 20 days (range 8-37 days) in survivors but the virus (SARS-CoV-2) was detectable until the death in non-survivors[2]. Surface Stability of virus observed was maximum seven days on stainless steel and plastic surface[3].

On the contrary, when the dead body is buried in the graveyard, the virus (negative microvita) remain in the body, they have a substrate to replicate. They will decompose the body and that decomposition may attract more negative microvita. In case of epidemic or pandemic, mass mortality and their cremation will increase the concentration of negativity at the graveyard and that may attract or cause flow of different types of negative microvita from other terrestrial bodies- a very dangerous situation.

Unfortunately, if the body comes out of the grave, say by animals' digging, earthquake etc., then that body which is highly infested with negative microvita will be a source of infection for the community. Therefore, it is better to burn the body along with its clothes for the purpose of safety to the community. Furthermore, mass cremation needs a lot of landscape to dig the graves and in future that land will be of no utility. In the future there are still chances to get more negative microvita attacks on this earth; in that case, the more and more land will be converted to graveyard. While in the case of funeral such an odd

situation will never arise. The same place will be regularly reutilized as has been practiced from ages.

Therefore, in the benefit of humanity, the WHO should release guidelines on this matter and the dead bodies should be subjected for their last rites by burning in a respectable way. China did the same to control the spread of the epidemic in Wuhan and we should also follow the rational way to dispose the bodies infected by negative microvita (SARS CoV-2).

In conclusion, it is better to burn the corpse of COVID-19 patient along with his belongings rather than burying. The concept is for safety and not against religious fanaticism. It will not only prevent the spread of infection at the present moment but will also prevent the future attack of negative microvita from extra-terrestrial bodies.

References

1. Sarkar PR. 2012. *Microvitum in a Nutshell*, 4th edition, Ananda Marga Publication, Kolkata
2. Zhou F, Yu T, Du R, Fan G *et al*. 2020. Clinical course and risk factors for mortality of adult in patients with Covid-19 in Wuhan, China: A retrospective cohort study. *Lancet*. 395:1054-1062.
3. Doremalen N, Bushmaker T, Moris DH, Holbrook MG *et al*. 2020. Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *N Engl J Med*. 382:1564-1567.

An Overview on Angiospermic Parasitic plants of Rajasthan, India

Anita Jain and Satish Kumar Sharma*

Department of Botany, Vidya Bhawan Rural Institute, Udaipur-313001, Rajasthan
Email: anitajain_02@rediffmail.com
*14-15, Rampura Chouraha, Jhadol Road, Udaipur-313004, Rajasthan

Abstract

Parasitic plants are very diverse group and have been able to colonize almost every corner of the world (except the polar region), as well as common in lowlands and disturbed habitats. In Rajasthan, 17 parasitic plant species belonging to 10 genera and seven dicotyledonous families are found. Out of these, 15 are ethnomedicinally important while genus like *Striga*, *Orobanchae* etc. cause major threat to agriculture crops. *Cuscuta*; agriculture and silviculture troublesome weed occurs almost on all trees species while *Viscum* affects many tree species. Parasitic plants have major impact on all type of ecosystems. A detailed review of indigenous uses of these parasitic plant species along with their botanical, local and English names, habit, habitat, their present status are given in this paper and further studies are suggested on various aspects of these diverse group of plants.

Keywords: Hemi-parasite, Ethnomedicinal uses, Ethnopharmacology, Mistletoe

Introduction

Parasitic plants are usually considered as botanical curiosities because of their shapes, habits, adaptations and colours[1]. However, they are biologically interesting because their dependency on hosts for survival have influenced their behaviour, morphology, and genomes. Parasites vary in their degree of necessity from a host, ranging from being partially independent (hemi parasitic) to being complete dependent (holoparasitic)[2]. Some parasites can live independently, but if they find potential hosts, they can use them to supplement their nutritional needs. They acquire some or all of their water, carbon and nutrient sources via the vascular tissue of the host's roots or shoots. Parasitism has major impacts on host growth, allometry and reproduction, which lead to changes in competitive balances between host and non-host species and therefore affect community structure, vegetation zonation and population dynamics. Impacts on hosts may further affect herbivores, pollinators and seed vectors, and the behaviour and diversity of these is often closely linked to the presence and abundance of parasitic plants. Parasitic plants can therefore be considered as keystone species[3].

Parasitic plants have been able to colonize almost every corner of the world except the polar region. Current biodiversity estimates indicate that approximately 4,718 species of flowering plants are parasitic, which account for about 1.2% of the total inferred number of plant species in the world. About half of the known species (2,284 species) of parasitic plants belong to a single order Santalales, which is diverse and mainly composed of hemiparasites while 2100 species belong to order Lamiales (under a single family Orobanchaceae). *Cuscuta* is the largest genera with 215 species in World. However, parasitism has evolved independently in 11 lineages of Angiosperms comprising 27 families, some of them are small and consisting of only one species[2].

Mistletoes are one of the important components of hemiparasitic plants of biodiversity; which grow on branches of trees and shrubs. However, mistletoes are a diverse group comprising about 1,663 species in 90 genera distributed around the globe, especially in the tropics. All mistletoes belong to order Santanales where they are classified in five families: Amphorogynaceae, Loranthaceae, Misodendraceae, Santalaceae, and Viscaceae. Mistletoes play a vital role in natural plant communities by interacting with other hosts, herbivores and dispersers. As they mature, mistletoes grow into "witches' brooms," which can reach 5-feet wide and weigh 50 pounds and trees infested with mistletoe die early and then these dead trees become useful to nesting birds and mammals. A mistletoe-infested forest may produce three times more cavity-nesting birds than a forest lacking mistletoe. A variety of birds nest directly in witches' brooms, including House Wrens, Chickadees, Mourning Doves, Pygmy Nuthatches, Spotted Owl, Tree Squirrel species etc. Three kinds of U.S. butterflies depend on mistletoe for survival: the Great Purple Hairstreak, The Thicket Hairstreak and The Johnson's Hairstreak. These butterflies lay eggs on mistletoe, and their youngs eat the leaves. The adults of all three species feed on mistletoe nectar, as do some species of native bees. The mistletoe's white berries are toxic to humans but are favored by mammals ranging from deer and elk to squirrels, chipmunks and porcupines during autumn and winter when other foods are scarce. Many bird species, such as robins, chickadees,

bluebirds, and mourning doves, also eat the berries2. In many cultures, mistletoes have been a source for many concepts, symbols, and rituals. Since early days, they have been one of the most magical, mysterious and scared plants of folklore. Probably due to their parasitic nature, elusive method of dispersal, and strange growth habit, many cultures have revered, feared, or thought them to have magical properties. The species is respected for its palliative properties against cancer, along with connotations in sympathetic medicines of abnormal growth[4].

Terrestrial parasites like broomrapes (*Striga* spp., Orobanchaceae) are known for their capacity to affect or even destroy agricultural crops such as Rice, Maize, Sugarcane and Sorghum and timber plantations. Some parasitic herbs are not aggressive and are used as ornamentals in gardens such as the Indian paintbrush (*Castilleja coccinea*, Orobanchaceae) and some species of louseworts (*Pedicularis* spp., Orobanchaceae). Only a few parasitic plants yield economically important products such as the Sandalwood, obtained from the tropical plant *Santalum album* (order Santanales). Other products are local and include traditional medicines, food and crafts like "wood roses" [2-3].

Rajasthan is the largest state of India located in the north-western part of the country. Rajasthan forms the eastern extremity of the great arid and semi-arid belt of the world; known as Thar Desert. The Aravallis and Vindhyans are important mountain chains of the state. Rajasthan has a wide range of habitats, climatic factors, physiography, soil and geological formations, which support 1911 species of phanerogamous plant species in the state[5]. Looking to the important role of parasitic plants in nature, an attempt was made to document ethnobotanical uses of parasitic plants present in the state.

Methodology

Extensive field surveys to various parts of Rajasthan as well as floristic and ethnobotanical literature survey were conducted to collect number of parasitic plant species occurring in Rajasthan as well as their associated indigenous knowledge[5-10]. Various online journals related to ethnobotany and ethnopharmacology of those parasitic plants were also consulted[11-29].

Table 1 depicts the botanical names and families of parasitic plant species occurring in Rajasthan whereas a detailed review of indigenous uses and ethopharmacological activities of those parasitic plant species has been presented in Table 2 along with their botanical, local and English names, habit, and habitat as well as their present status.

Results and Discussion

Out of the 1911 Angiospermic species, 17 parasitic plants belonging to 10 genera and seven dicotyledonous families occur in Rajasthan. Among the seven families, three parasitic genera belong to Orobanchaceae, two from Scrophulariaceae and one from Cuscutaceae, Lauraceae, Loranthaceae, Santalaceae and Viscaceae each. Parasitic plant species *Cuscuta chinensis* var. *cillaris*, *Orobanche aegyptiaca* var. *nepalensis*, *Dendrophthoe falcata* var. *coccinea* and *Dendrophthoe falcata* var. *falcata* have been identified at variety level[5-7] (Table 1). Though the species are few in number, their uses have been practiced indigenously for centuries. Almost all species are being indigenously used for their medicinal values in different parts of the world including Rajasthan. Few species like *Cassytha filiformis*, *Cistanche deserticola*, *Sopubia delphinifolia* etc. are widely used indigenously for their medicinal values outside the state but authors could not find even a single publication on it from Rajasthan. Besides medicinal value, some species like *Santalum album* gives timber and essential oil, *Viscum articulatum* is used as fodder and *Dendrophthoe falcata* as food. For flavour and nectar, fruits of *Dendrophthoe*, *Viscum* and *Santalum* are relished by butterflies and birds[15,16]. However, mostly annual root parasites belonging to family Orobanchaceae may kill the host and cause considerable economic damage when attacking monocultures in agriculture; though these parasitic plants possess great medicinal potential.

Their ethnomedicinal uses and pharmacological activity is due to presence of varied number of secondary constituents in these parasitic plants. Phytoconstituents like cardiac glycosides, alkaloids, flavonoids, tannin, phenolics, steroids, coumarins and saponin are reported from *Striga asiatica* and *Alectra chitrakutensis*[10,13]. Some compounds like aporphine, oxo-aporphine alkaloid, cassyformine, filiformine, cathaformine, lignan, actinodophine, and octenine have been isolated from *Cassytha filiformis*[14]. *Cuscuta* genus is rich and diverse source of many valuable chemical components. It is loaded with flavonoid, alkaloid, lignans, polysaccharides, steroids, volatile oils and resin glycosides. Traditionally it is considered having broad spectrum of remedial values. In comparative study, it was suggested that the plants in the *Cuscuta* genus are blessed with almost same soluble phenolic secondary metabolites as chlorogenic acid, 3,5-dicaffeoylquinic acid, 4,5-dicaffeoylquinic acid, hyperoside, quercetin 3-O-glucoside but with varying quantities, may be this is the reason, indigenous people do not differentiate the use of *Cuscuta* at species level of the taxonomic classification.

From *Cuscuta asiatica*, phenolic secondary metabolites as chlorogenic acid, 3,5-dicaffeoylquinic acid, 4,5-dicaffeoylquinic acid, hyperoside, quercetin 3-O-glucoside have been isolated[15].

Future suggestions

Although 17 species of parasitic plants are occurring in Rajasthan but only few papers have been published on these important group of plants. Following studies have been suggested to understand impact and role of parasitic plants in various types of ecosystems of Rajasthan:

- Parasitism and its direct consequences on dynamics of parasite–host interactions, host range preference and selection.
- Impact of parasitic plants on the plant community diversity, biomass, vegetation cycling and zonation, etc.
- Impact of the plant community on parasite populations.
- Impact of the parasite on various trophic levels like interactions with herbivores, pollinators, seed dispersers, with other (non-plant) parasites of the host, soil biota, soil resources, effects on the diversity of other organisms (animal species) etc.
- Impact of the parasite on the surrounding abiotic components of the ecosystem.
- As the parasitic plants are used traditionally to cure several diseases, therefore, phytochemical screening and pharmacological studies of this diverse group of plants is extremely momentous in detecting and identifying innovative sources of healing as well as commercially important compounds. Parasitic plants have long history in traditional medicine and contain several phytoconstituents like cardiac glycosides, alkaloids, flavonoids, steroids, coumarins etc[30]. These compounds are great source of antiviral drugs. Therefore, antiviral potential of these parasitic plant species could be screened against Corona virus and all other pathogenic viruses.
- Conservation of endangered medicinal parasitic plant species like *Alectra chitrakutensis* and other species should be taken into priority, as they are medicinally very important and may become source of novel medicine.
- Due to infestation of destructive root parasitic species of genus *Striga* and *Orobanchae*, major loss of crop plants of various families had been happened so proper management of these species should be taken into priority.

References

1. Delavult P, Montiel G, Brun G, Pouvreau JB, Thoiron S, Simier P. 2017. Communication between host plant and parasitic plants. *Advances in Bot. Res.* 82:55-82.
2. Marcos A & Caraballo A. 2019. Parasitic plants: Important components of biodiversity. *Plant Press*, 22:4
3. Malcolm CP & Phoenix GK. 2005. Impacts of parasitic plants on natural communities. *New phytologist.*166: 737-751.
4. Pohill RM & Wiens D. 1998. *Mistletoes of Africa.* Royal Botanical Garden, Kew, London
5. Shetty BV & Singh, V. 1987-1993. *Flora of Rajasthan*. Botanical Survey of India, Kolkata.
6. Sharma SK & Katewa SS. 2007. Addition on the flora of Rajasthan form Southern Aravallis. *Zoos Print J*. 22(10):2867-868.
7. Sharma SK & Bhutia RC. 2013. *Alectra chitrakutensis* (Orobanchaceae) in Bundi district, of Rajasthan, India. *Taprobanica.* 5:142-43
8. Katewa SS & Jain A. 2006. *Traditional Folk Herbal Medicines*. Apex Publishing House, Jaipur (Rajasthan).
9. Katewa SS, Galav P, Jain A. 2010. *Traditional folk veterinary medicines*. Scientific Publishers, Jodhpur, Rajasthan.
10. Sharma SK, Patil AS & Sikarwar RLS. 2016. Comparative phytochemical evaluation of ethnobotanically important medicinal parasitc herbs: *Alectra chitrakutensis*. *Int. J. Pharm. Pharmaceut. Sci.* 8(4):351-55.
11. Kunwar R, Adhikari N, & Devkota M. 2005. Indigenous use of mistletoes in tropical and temperate region of Nepal. *Banko Janakari.* 15(2):38-42.
12. Thapa B, Walker DH & Sinclair FL. 1997. Indigenous knowledge of the feeding value of tree fodder. *Animal feed Sci Technol.* 67:97-114.
13. Kakpure MR & Rothe SP 2012. Qualitative phytochemical screening of Indian Witchweed: *Striga asiatica* (L.) O. Ktze - an unexplored medicinal parasitic plant. *J. Exp.Sci.* 3(3):28-31
14. Mythili S, Gajalakshmi A, Sathiavelu T, Sridharan B. 2011. Pharmacological Activities of *Cassytha filiformis*: A Review. *Asian J Plant Sci. Res.* 1(1):77-83.
15. Shazia N, Sobia N, Shazia AG, Fozia B & Syed NAB. 2019. The genus *Cuscuta* (Convolvolaceac): An updated review on indigenous uses, phytochemistry, and pharmacology. *Iran. J. Basic Med. Sci*. 22(11):1225–52.
16. Wang T, Chen C, Yang M, Deng B, Kirby GM & Zang X. 2016. *Cistanche tubulosa* ethanol extract mediates rat sex hormone levels by induction of testicular steroidgenic enzymes. *Pharm. Biol.* 54(3):481-87.
17. Wang T, Zhang X. & Xie W. 2012. *Cistanche deserticola* Y. C. Ma, "Desert Ginseng": A Review. *The Am. J Chin.Med.* 40(6):1123-41.
18. Donnapee S, Li J, Yang X, Ge AH, Donkor PO, Gao XM & Chang YX. 2014. *Cuscuta chinensis* Lam.: A systematic review on ethnopharmacology, phytochemistry and pharmacology of an important traditional herbal medicine. *J Ethnopharmacol*. 18(157):292-308.
19. Pattanayak SP & Patil S. 2008. Wound healing, anti-microbial and antioxidant potential of *Dendrophthoe falcata* (L.f) Ettingsh. *J Ethnopharmacol.* 120(2):241-7.

20.Kumar R, Nishat A& Tripathi YC. 2015. Phytochemistry and pharmacology of *Santalum album* L. *World J. Pharmaceut. Res*. 4(10):1842-76.
21.Shackira AM & Puthur Jos. 2014. Genetic delimitation of *Parasopubia* (L.) Hofm. & Eb. Fisch. and *Soupubia* Buch.-Ham: Justification through histochemical and biochemical analysis. Proceedings of 26th Kerala science congress Pookode, Wayanad: 28-31 Jan. Pp.10-17.
22.Adirukmi NS, Normalawati S & Salleh MN. 1994. Phytochemical research on *Striga asiatica* var. *lutea* (L.) O. Kuntz found in Malaysia. *ASOMPS*, VIII (P. 27, Abstr. No.P.27).
23.Anonymous 1986. Useful plants in India. *Publications and Information Directorate*, CSIR, New Delhi.
24.Ong HC, Ahmad N & Milow P. 2011. Traditional medicinal plants used by the Temuan Villagers in Kampung Tering, Nigeri Sembilan, Malaysia. *Ethno. Med.* 5(3):169-173.
25.Hiremath SP & Rao HS. 1997. Flavones from *Striga lutea*. *J. Ind. Chem. Soc.* 74(5):429.
26.Hiremath SP, Swamy HKS, Badami H & Purohit MG 1994. Antibacterial, antifungal and antihelmintic activity of various extract of *S. lutea*. *Fitoter*. 65(4):372-74.
27.Nakanishi T, Ogaki J, Inada A, Murata H, Nishi M & Yonida K. 1985. Flavonoids of *Striga asiatica*. *J. Nat. Prod.* 48(3):491-93.
28.Parker C. 2009. Observation on current status of *Orobanche* and *Striga* problem worldwide. *Pest Manage. Sci.* 65(5):453-59.
29.Oli BR. 2001. *Local knowledge on plant utilization among the major ethnic communities (Limbu, Rai, Brahmin, Cheetri, Magar, and Tamang) in the eastern Churia, Nepal.* Central Department of Botany, Tribhuvan University, Nepal. M.Sc. Thesis. 137.
30.Jassim SAA & Naji MA 2003. Novel antiviral agents: a medicinal plant perspective. *J. Applied Microbiology*. 95:412-427.

Table 1. Families containing parasitic flowering plants, with genera, species and varieties occurring in Rajasthan.

S.No.	Family	Genus	Species	Varieties
1.	Cuscutaceae	*Cuscuta*	*C. chinensis* Lam.	*cillaris*
			C. europaea L.	
			C. hyalina Roth	
			C. reflexa Roxb.	
2.	Lauraceae	*Cassytha*	*C. filiformis* L.	
3.	Loranthaceae	*Dendrophthoe*	*D. falcata* Ettingsh	*coccinea*
				falcata
4.	Viscaceae	*Viscum*	*V. articulatum* Burm. f.	
5.	Santalaceae	*Santalum*	*S. album* L.	
6.	Orobanchaceae	*Cistanche*	*C. tubulosa* (Schrenk) Wight	
			C. deserticloa Y.C. Ma	
		Orobanche	*O. aegyptiaca* Pers.	*nepalensis*
		Striga	*S. angustifolia* (D.Don) Saldhana	
			S. asiatica (L.) Kuntze	
			S. densiflora (Benth.) Benth.	
			S. gesnerioides (Willd.) Vatke	
7.	Scrophulariaceae	*Alectra*	*A. chitrakutensis* (M.A. Rau) R. Prasad	
		Sopubia	*S. delphinifolia* (L.) G.Don.	

Dendrophthoe falcata* var. *coccinea

Viscum articulatum

Table 2. Ethnobotanical uses and ethnopharmacological activities of parasitic plants occurring in Rajasthan

Botanical name (Family)	**Common /English name**	**Habit**	**Habitat/ Status**	**Ethmomedicine & Ethnopharmacology**
Alectra Chitrakutensis (M.A. Rau) R. Prasad (Scrophulariaceae)	Nirgundikand	Annual Root holoparasite	Critically endangered, occur in moist locality on roots of *Vitex negundo.*	Ethnomedicinally dried rhizome is used to cure leprosy, tuberculosis, paralysis, malaria, oedematous swelling, fever, intestinal worms, constipation and spermatorrhoea. The plant and rhizome extract with almond, cucumber, watermelon, long cucumber, cardamom and rose petal is taken as an invigorating tonic[10].
Cassytha filiformis L. (Lauraceae)	Love vine	Winding Stem parasite (Mistletoes)	Perennial, grows rather slowly: Host range is high found on most of the species like *Acacia, Azadirachta, Mangifera* etc.	Traditionally used for the treatment of cancer & African trypanosomiasis and many other related diseases. This plant is used as an antiplatelet, vasorelaxant, alpha adrenoreceptor antagonist and as anti-trypnosomal agents[14] .
Cistanche tubulosa (Schrenk) Wight (Orobanchaceae)	Desert Broomrape/ Lonki-ka-mula	Root parasite	Usually occur on sandy habitat and growing on the roots of *Capparis decidua, Salvadora persica, S. oleoides, Calligonum polygonoides, Calotropis procera, Tamarix indica* etc.	In China and other Asian countries whole plant is used for disease condition like impotency, seminal emission, infertility, general weakness, constipation and for long life expectancies[16]. Whole plant is also used by tribals to cure jaundice, whooping cough & stomachache. In veterinary medicine it used to treat Bovine viral mammaitis by the tribals of Rajasthan[9].
Cistanche deserticola Y.C. Ma (Orobanchaceae)	Desert Ginseng	Root parasite	Grows in arid or semi-arid areas on the roots of *Capparis decidua, Salvadora persica, S. oleoides, Calligonum polygonoides, Calotropis procera, Tamarix indica* etc.	This plant possess broad medicinal functions, especially for use in hormone regulation, aperient, immunomodulatory, neuroprotective, antioxidative, anti-apoptotic, antinociceptive, anti-inflammatory, anti-fatigue activities and the promotion of bone formation[17].
Cuscuta chinensis var. *cillaris* (Hohen. ex Boiss) Engelm. (Cuscutaceae)	Amar-bel/ Dodder	Stem Parasite (Mistletoes)	Climber, annuals, troublesome in agriculture found almost on many trees and shrubs	Traditionally in China, Korea, Pakistan, Vietnam, India and Thailand used as an anti-aging agent, anti-inflammatory agent, pain reliever and aphrodisiac[18].
Cuscuta europaea L. (Cuscutaceae)	Amar-bel/ Dodder	Stem Parasite (Mistletoes)	Parasites on the various trees	The sap is used as carminative, and the extract is applied to treat psoriasis. Seeds and vegetative parasitic plant is used as laxative, diuretic, and pain reliever but in higher quantity poisonous[15.]

Cuscuta hyalina Roth. (Cuscutaceae)	Amar-bel/ Dodder	Stem Parasite (Mistletoes)	Parasites on the various trees	Purgative, used externally against itching, to wash sores, internally to cure fever, ulcer, culex mosquito bite, sometimes also used for abortion[15.]
Cuscuta reflexa Roxb. (Cuscutaceae)	Amar-bel/ Dodder	Stem Parasite (Mistletoes)	Common throughout the state, usually parasitizing on *Adhatoda zeylanica, Acacia nilotica, Ziziphus nummularia, Z. mauritiana* etc. and forest tree species.	Anti-inflammatory, in asthma, cholera, jaundice, dermatitis & other skin diseases[8]. This species also used to cure haematuria in cattle[9]
Dendrophthoe falcata var. *coccinea* (red flowered) (Loranthaceae)	*Vanda*	Stem hemi - parasite (Mistletoes)	Parasitizing on branches of *Boswellia serrata.*	Ethnomedicinally used for treating ulcers, asthma, impotence, paralysis, skin diseases and wounds[19].
Dendrophthoe falcata var. *falcata* (white flowered) (Loranthaceae)	*Vanda*	Stem hemi-parasite (Mistletoes)	Host range is generally high. Grow on host like *Mangifera indica, Miliusa tomentosa, Tectona grandis, Madhuca indica, Albizia lebbeck, Cassia siamea* etc. In India, this species causes enormous damage in plantations of teak (*Tectona grandis*) due to parasitizing, may lead to death of entire trees.	This plant is used by tribals to cure several diseases like gynecological ailments, gastrointestinal diseases, urolithiasis, wound healing, bone fracture & skin diseases[8]. Fruit is taken as edible, astringent, narcotics, and for curing wounds. Nectar is food for Hair Crested Drongo and Sunbirds[11.]
Orobanche aegyptiaca Pers. var. *nepalensis* (Orobanchaceae)	Broomrapes	Holo/ hemi- root parasite	Weedy, impact on agriculture is tremendous, attacks crop plants belonging to variety of families, including Solanaceae, Fabaceae, Cucurbitaceae, Brassicaceae and Asteraceae.	Projectile seeds are used as toys[8].
Santalum album L. (Santalaceae)	Chandan	Partial root parasite	This species is grown on larger scales in India & have a positive economic value as a source of hard timber and essential oils.	Sandalwood oil distilled from the heartwood is extensively used in perfumery, cosmetics, aromatherapy and pharmaceutical industry. Employed in the treatment of sub-acute and chronic infections of mucous tissues, particularly gonorrhoea, bronchitis, with fetid expectoration, diarrhoea, inflammation of the bladder and pyelitis.

				The wood, root, bark and leaves of the plant used for the treatment of the liver disease like jaundice, gastric irritability, dysentery, tension and confusion, blood purifier, as tonic & memory enhancer by the tribal healers[20].
Sopubia delphinifolia (L.) G. Don. (Scrophulariaceae)	Dudhali	Root parasite (Mistletoes)	This is common root parasite in moist grassland. Erect herb, stem grooved, branched and flower purple white in colour.	Its juice is reported to possess healing property for sores caused by moisture and reported to be an abortificient[21].
Striga angustifolia (D.Don) Saldhana (Orobanchaceae)	Witch weed	Obligate Root parasite	Damaging parasitic weeds, obligate root parasites of grain grasses and legumes, which threaten food supply in many developing countries.	-
Striga asiatica (L.) Kuntze (Orobanchaceae)	Witch weed	Obligate Root parasite	The most destructive species on cereals like rice, pearl millet, sorghum and maize that threatens the food security in many continents (Asia, Africa & some part of USA).	*S. asiatica* has a wide range of medicinal uses; appetizer, stimulant, body strengthener, in hypertension, sexual heatiness, break down of fats[22,23,24]. Also possesses antifertility effect[25] antibacterial, antifungal and antihelmintic activity[26]. The whole plant, crude drug has been used as a remedy for peevishness in unweaned infants and also for Icterohepatitis in China[27].
Striga densiflora (Benth.) Benth. (Orobanchaceae)		Root parasite		-
Striga gesnerioides (Willd.) Vatke (Orobanchaceae)	Lalagia, Gwal - mehndi	Root parasite	This species is pest of Fabaceae, especially cowpea[28]. Also parasite on roots of *Lepidagathis* sps. and *Euphorbia caducifolia*	The flowers yield a pink colour used for painting, root sap is used to colour the skin indigo and blue-black. It possesses antifertility, anti-inflammatory, antispasmodic, antihistaminic and mast cell stabilizing activities[9].
Viscum articulatum Burm. f. (Viscaceae)	Logalai	Stem parasitic (mistletoe)	Parasitizes on trees and climbers	Plant bark is often mixed with hen egg and *Pinus roxburghii* leaf and taken for ailment of bone dislocation. Paste prepared from all parts of the plant applied over the fractured portion of the body[29]. Bark used as aphrodisiac & febrifuge. Stem paste and decoction is applied on cuts, wounds, bone fracture, ulcers and blood diseases, epilepsy and sprain. Plant is also used as fodder [11].

Secretarial Desk

SMRIM - ACTIVITIES

Talk in National Symposium, Udaipur

A National Symposium on Multilateral Initiatives against Arboviral Diseases (NSAD 2020) was organized by Laboratory of Public Health Entomology, Department of Zoology, University College of Science, Mohanlal Sukhadia University, Udaipur on 04-06th January, 2020. President of Society for Microvita Research and Integrated Medicine (SMRIM), Dr. S. K. Verma was invited in the Symposium to speak on "Syndromic categorization of arthropod borne viral diseases and their management through Microvitology – A physico-psycho-spiritual approach". He told that the spectrum of possible human responses to infection with arthropod borne viruses is wide and knowledge of the outcome of most of these infections is limited. He discussed the enigmatic behavior of some zoonotic viruses in context with Shrii P.R. Sarkar's new concept of Microvitology. He emphasized on physico-psycho-spiritual approach for treatment of viral diseases because there is no definite treatment of so-called viral diseases. Symposium focused on uniting all stakeholders to overcome challenges and fight against arboviral diseases for improving health and well-being of tribal community. Organizing Secretary Dr. Arti Prasad welcomed Dr Verma and appreciated the novel concept of microvital approach for viral diseases.

A National Conference on Integrative approaches for Mental Health and Well Being was organized by Department of Psychology, University College of Social Sciences and Humanities, Mohanlal Sukhadia University and Academy of Well Being Society, Udaipur on 27-28 September, 2019 in which President of SMRIM, Dr. S. K. Verma was invited to speak on "Biopsychology - spirituality based approach for mental health". He told that Bio-psychology is a new science that deals with the interaction between mental propensities, hormones and nerve cells and their effect on human behavior and vice versa. Mental health is a psychic phenomenon – an expression of propensities and psychic propensities are under the effect of reactive momenta which the person has acquired. He discussed an integrative approach to achieve mental health and well being for example, load of reactive momenta can be reduced by scientific meditation which will help in rectifying the propensities. Hormonal balance can be achieved by suitable Yogic postures, thereby controlling the propensities. Both will affect and rationalize psychic phenomena (thoughts) which can be further modified by administration of sentient food. Prof. Kalpana Jain, Head, Dept. of Psychology gave thanks to Dr Verma for his enlightening speech.

Talk on Biodiversity conservation

Udaipur. A program on 'Loss of Biodiversity: Causes, Consequences and Conservation Strategies' was organized on Saturday, 25 January, 2020 by Inter-Disciplinary Education Association of Govt. Meera Girls College, Udaipur for Faculty members as well as students. Main Speaker Dr. Vartika Jain, Secretary, Society for Microvita Research and Integrated Medicine (SMRIM), spoke that biodiversity consists of each and every living species on the earth. But due to some natural causes and majorly man-made causes such as pollution, excessive consumption of natural resources, poaching, habitat degradation etc. biodiversity is being lost at an alarming rate and therefore, there is an urgent need to conserve biodiversity as its loss will negatively impact human existence. She emphasized on strategies being employed at National and International levels for biodiversity conservation and role of mankind. Dr. Jain shown the efforts of Botany department of MG College in doing ex situ conservation by planting Rashi Vatika as well as rare and endangered plant species in the College. Program was presided by Dr. Shashi Sanchihar, who motivated students to do little efforts to conserve biodiversity by planting a tree or even saying no to plastic materials. IDEA coordinator Dr. Shivani Swarnakar gave thanks to Dr. Vartika and told students to take a single pledge to conserve biodiversity as their contribution. Program was conducted with help of Dr. Anju Beniwal and Dr. Sheiba Haider. Senior faculty members Dr.Savita Chahar and Dr. Geeta Swami were also present.

10th Iron-pole Holika-dahan

SMRIM is successfully celebrating eco-friendly Iron-pole Holika-dahan without using any wood since 2011. This year on 9th March, 2020, neo-humanist approach to save Silk Cotton tree was continued at Patrkar Colony, Chitrakoot Nagar, where Retired Judge from High Court, Shrii Ram Singh Jhala lit the fire in the Iron-holi. Along with that it was also implemented at Panchwati, Ram Singh ji ki Baari, Udaipur and few places at Bhinder and Kanore. In this method, cost-effective and durable iron poles are wrapped with dry grass and hay material and burnt as a symbol of Holika-the mythological character instead of any tree. The dedicated team members of SMRIM and the local citizens, Satyendra Singh Chouhan, Inder Singh Rathore, Ajay Acharya, Anju, Taponistha, Rahul, Girdharilal Soni, Om Vyas, Dinesh Sharma, Kailash Choudhary, Mod Singh, Jagdish Soni, Satyanarayan, Gopal Soni, Lalit Prajapat helped immensely to make this mission success from past ten years and Semal trees are being saved on every Holika-dahan. Massive plantation of Semal saplings in and around various places of Udaipur city is another part of this mission.

--Dr. Vartika Jain (Secretary, SMRIM)

Bulletin on Microvita Research and Integrated Medicine started in March, 2009 is an official peer reviewed Journal of Society for Microvita Research and Integrated Medicine (SMRIM), Udaipur, Rajasthan. It publishes three issues in a year having original research, reviews, short notes, case studies in the field of microvita and integrated medicine in both hard and soft copies. Book reviews are published after approval by Editor. The Journal does not levy any Article Processing Charges or Article Submission Charges. Previous issues are available online at : www.microvitamedresearch.com

Instructions to Authors

Preparation of the Manuscript

Manuscripts should be typed in double space (12 pt, Times New Roman font) on one side of the paper of 22×28 cm. All pages should be numbered consecutively. SI units should be used and Symbols should conform to standard guidelines.

Title

It should be short & informative (14 pt), to be typed in only first letter of the first word capital; also, after colon or hyphen, first letter of the first word capital. Latin names are to be given in italics.

Keywords

Four to five keywords (in normal; 11 pt) should be given indicating the contents of the manuscript.

Authors

Names of authors to be typed in first letters capital (12 pt).

Addresses of Authors

Addresses of the affiliating institution (s) along with e-mail address (10 pt) should be given.

Main Headings

Each manuscript should be divided into the following main headings (typed in bold, first letters capital, on the left hand side of the page; 12 pt): Abstract, Introduction, Methodology, Results, Discussion, Acknowledgement, References.

Sub-Headings

Typed in flush left, bold, first letters capital (10 pt).

Abstract

It should be brief within the limit of 200 words and typed in normal font (11 pt).

Introduction

A brief and precise literature review with objectives of the research undertaken and essential background could be given.

Methodology

Methodology should include location of survey area, the source and nature of material, experimental design and the techniques employed.

Results

Results should contain data, which are essential for drawing main conclusion from the study. Wherever needed, the data should be statistically analyzed. Same data should not be presented in both table and figure form.

Discussion

The discussion should deal the interpretation of the results. Wherever possible, results and discussion can be combined.

Tables

Tables should be typed in double space on separate sheets and numbered consecutively. Table headings should be typed with the first letter capital (12 pt).

Figures

Relevant good quality illustrations/ photographs/line drawings etc. could be sent in JPEG format through email. Text figures should be numbered in Arabic numerals. Lettering, numbering, symbols and lines in the graphs/illustrations should be sufficiently clear. Captions and legends to illustrations should be typed on a separate sheet of paper.

Acknowledgement

Acknowledgements should be made in brief.

References

References should be cited in the text by the consecutive **numbers** of their occurrence; the numbers are to be shown as superscript at the end of the statement related to that particular reference, **e.g.** Microvita are mysterious emanations from Supreme Consciousness[1].

Following the same sequence of the text, the list of references be appended under the **References** heading. Each reference should provide names and initials of all the authors, giving coma in between the authors. In case, the authors are more than five, then use *et al* after the 5th author. It should be followed by year of publication, title of the paper, abbreviated title of journal (in italics)/ book title in italics, volume number, issue number and the starting and closing page numbers. Abbreviated titles should conform to the international guidelines, e.g. The Chemical Abstracts Service Source Index (CASSI) or BIOSIS. The style of references should be:

Research Papers

1. Verma SK. 2016. Microvitopathy. *Bull. Microvita Res. Integr. Med*. 8(1-3):3.

Books

1. Sarkar PR. 1987. *Microvita in a Nutshell*. p.56. AMPS Publ., Tiljala, Kolkata.
2. Jain V. & Jain SK. 2016. *Compendium of Indian Folk Medicine and Ethnobotany (1991-2015)*, pp. 1-542. Deep Publ., New Delhi.
3. Jain V. 2017. Chapter 5.1: A glimpse of culture-based man-plant relationships in Indian folk life. In: *Methods and Approaches in Ethnobotany* (*Concepts, Practices and Prospects*) (Ed. Jain SK and Jain V), pp. 151-157. Deep Publ., New Delhi.

Paper along with referees' comments will be sent to the corresponding author through email which should be checked carefully and returned after modifications within five days of receipt. No page proofs will be sent to author(s).

PDF of the issue in which the article is published will be provided to the author via e-mail.

The language of the Journal is English. However, there is also scope for few articles in Hindi in every issue. Book reviews and papers neatly typed, double spaced, with margins on all sides along with photographs (if any) may be submitted through E-mail at: skvermaster@gmail.com

All correspondence regarding Journal should be sent to:

Dr. S. K. Verma
Chief Editor, BOMRIM
28, Shivaji Nagar, Udaipur-313001, Rajasthan, India
Email: skvermaster@gmail.com