



CORONA: AN ANALYSIS INTO EPIDEMIOLOGY, TRUTH, CONCEALMENT AND REVELATIONS

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ABSTRACT

Corona is a disease caused by the single strand RNA virus of the same name of family Coronaviridae and sub family Orthocoronavirinae. There are four genera and many species of this virus which are known to cause infection in farm animals, domestic pets, birds and humans. In humans also this has many species which give mild to severe symptoms like a common flu or pulmonary pneumonia etc. Like most viral infections, Corona does not respond to treatment by usual antibiotics and there are neither effective antiviral drugs known in medical field which can have an obvious effect on this disease. The virus is constantly mutating. The latest avatar of it is known as COVID19 and is lethal and has claimed many lives in the world. There are very interesting aspects as regards its epidemiology, nature and fallouts that this dreaded epidemic has come to cause on the human race. Of course, certain vaccines have hit the market and many are in the line but still big uncertainty looms on mankind due to this disease. Many myths and shrouds of mystery still seem to engulf the real facts about this disease and even the scientific community is not univocal on these subjects. We will try to elaborate on certain facts, data and scientific details about this virus and unearth the real truth about its nature, epidemiology and possible treatment for it.

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INTRODUCTION

Corona pandemic has spread throughout nations and continents. The available evidence says that it was first noticed in Wuhan city of China and later spread to all parts of the world. The entire world is still under a condition of shock and the normal fabric of society stands damaged. There have been very strict lockdowns in countries. The economic life has been in peril. The GDP's (gross domestic produce) of majority of nations have plunged into negative values. Millions have lost their livelihood and even more have been thrown into starvation. This is a very small account of hardships that have gotten inflicted upon the lives of people. Even the humanitarian and social fabric of life has gone totally torn. The values have suffered to an extent that people have refused to perform even the last rites of their near and dear ones due to

the panic of the disease and its spreadability. Even the rich and powerful nations have suffered equally well. USA has been hit the most with largest number of infections and casualties. India, Brazil, Russia, Britain, France, Italy, Spain, Germany and other countries have also reported similar figures of the damage. Who knows there will be how many further waves of infection and how serious they would be? Probably each new wave of infection will be deadlier and bigger than the previous ones. It is also true that the pandemic may take many years before it subsides in severity or it disappears altogether. These are the wise questions that only someone in future timeline can answer correctly? We have no option but to wait endlessly and of course patiently. Corona was discovered in birds as a new respiratory infection of chickens in late twenties in last century (Estola, 1970) and around 1930, it was known as IBV (infectious bronchitis virus). Later on around 1960, it was well established that it caused symptoms like a mild flu in humans (Hamre & Procknow, 1966; Tyrrel & Bynoe, 1965) and was christened as Corona virus (Almeida et al, 1968). By now we know four distinct species of it as OC43, HKU1, 229E and NL63 which cause mild cold symptoms in humans.

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They are known to account for nearly 15-20% of all common cold cases in temperate climates. One such species B814 has disappeared. Apart from them there are three deadly species of Corona virus known as SARS Cov1 which spread in 2002-2004 as first noticed in Shunde city of China in November 2002, MERS Cov which spread in 2012, 2015 and 2018 on three occasions as first noticed in June, 2012 in Jeddah city of Saudi Arabia and the SARS Cov2, also known as COVID19 which spread in December, 2019 as first noticed in Wuhan city of China (Wikipedia, 2020). Ever since the start of this disease, it has spread progressively at a fast pace to all continents and nations. There is still no known treatment for this disease and only vaccination is the answer. Many vaccines have hit the stores and many more are further in the process. Very ambitious vaccination plans have been chalked and put to action in all countries and governments and organizations are busy in implementing these mega inoculation projects. Only time will tell about the real outcome of these human endeavors

Epidemiology: The World Health Organization has already declared Corona a global pandemic. The first case of Corona was detected in December, 2019 in China. The disease spread to other parts of the world later on. The Europe and United States along with Brazil and India are the worst hit countries. On December 5, 2020, there were 1,515,990 confirmed deaths and more than 65,760,928 confirmed cases of this disease (Wikipedia, 2020). The disease is still on a spreading spree in many countries and has subsided in many countries but new waves of it are expected to follow with the passage of time. There is no certainty in sight in the near future at least.

The truth: The truth is that we know for certain well from twenties in last century that Corona infects birds and around 1960, it has been known to infect humans. There is a point to be noted. The human cold flu is of three types. The majority of it i.e. about 45-50% is caused by influenza virus, about 15-20% is caused by the harmless Corona species like OC43, HKU1, 229E and NL63 and the remaining common cold cases have their origin from other viruses. So, in a country like India with a population of about 140 crores people (one crore contains 10 millions) where almost every citizen on an average gets common cold two to four times a year; this means that on the lower scale, nearly 40-50 crore Indians contract Corona per annum and this is just a thing of routine happening and nothing catastrophic has ever happened due to this.

This truth has one more fact to reveal. Since Corona gets to infect nearly 40-50 crore Indians on a regular basis, this means that it may also develop immunity in them against other Corona species including COVID, probably better than the artificial Corona vaccines. The vaccines are known to have handicaps, side effects and shortcomings but the natural immunity caused by natural Corona strain of non lethal category will definitely be the far better alternative. A new strain of Corona has gotten detected in Britain and one more in Brazil and another in South Africa. The vaccines that were primarily developed with the older Wuhan strain in mind, will be effective against the new ones; there is no logical ground to believe. This may also be true on the otherwise but who knows what nature has in store for us in future? We even can not be sure as of how many strains of Corona do already exist or not in various parts of the world? So, the gamble on vaccines seems to be both tricky and dangerous. This is in fact the case with fast mutating viruses especially of the single strain RNA type and Corona is one such example just like

influenza and HIV for which still there is no successful vaccine and it will not be a surprise if for Corona also the same fate will be repeated.

Corona vs COVID: The reality may surprise many but it is a worthwhile subject to debate. By far, we know of eight confirmed Corona species. Of them four i.e. OC43, 229E, NL63 and HKU1 are not lethal. One B814 has disappeared and two out of the remaining three, MERS and SARS Cov are at present not active. The present pandemic is due to the last species i.e. COVID19. Now we all know that there is testing for Corona including the fast antigen test and the time consuming RTPCR test. Now the question arises. Are these tests designed for COVID or are they developed for other Corona species also? If they are designed only for COVID, then the fallouts will be different and if they are so formulated as to test for COVID and Corona both, then the outcome will be totally different. Suppose, a person tests positive for Corona of a non lethal Corona species, he should have a different treatment protocol than the one for COVID19. If the testing does not make a demarcation between the two and patients of all Corona species are horded as one in a common "Corona Ward" or an "Isolation Centre"; then definitely we are exposing the normal harmless Corona patients to the deadly COVID species and this is like death sentencing to innocent subjects who even do not have an idea of their actual sin? Even a harmless virus may acquire the deadly mortal gene of the harmful virus upon coming in proximity with it; is a basic virology principle. So, the probable complications of the present Corona pandemic are definitely more than expected.

Triumph of truth: It is a fact that truth only triumphs in the end. It is also true that many vaccines have been developed against Corona by many companies. The popular among them are the ones like Covishield by AstraZeneca-Oxford University, Covaxin by Bharat Biotech-ICMR, another vaccines by BioN-Tech-Pfizer, Moderna, Johnson & Johnson etc along with vaccines Sinovac and Sputnik V developed by companies in China and Russia. All the manufacturers have been vociferously vocal about the efficacy of these vaccines against not only the existing strains but also about the future avatars of Corona virus and have put tall claims of up to 90-95% on humans of all regions, creeds and terrains. God only knows who has prompted them to put such futuristic efficacy claims for virus strains that even do not exist as of now and who knows when they arrive in reality how they will behave in reaction to the vaccines that were developed even before their origin?! But cynical as it sounds, it will indeed take a very long time to decipher the truth behind such tall claims which are certainly beyond the limits of scientific reasoning and logic. But truth is always the curtain raiser. Now it is known that the Covishield vaccine developed by AstraZeneca-Oxford University has proved miserably incompetent to control the disease caused by a new mutated strain of Corona virus originated in South Africa (Al Jazeera, 2020). This is an indication that scientific claim should be based only on scientific facts and not on the whims and fancies of the owners of giant multinational companies, the governments or their drug regulators. Such foolish claims will only be refuted by the forces of science and time trail will reveal such fallacies.

Natural immunity balance disruption by vaccines: The nature is no doubt the creator and protector too. It inculcates immunity in organisms against pathogens. This immunity is like an insurance policy against the onslaught of disease and

nature provides it to organisms not as a gift but as a compulsory manufacturing accolade. It is unquestionably inbuilt as an ability and can also be the acquired one on demand when such an alarming situation arises and this power to generate it in the living systems on demand is also an inbuilt virtue and is best preserved in the genetic as well as somatic composition of living matter. Being genetical, it is transmitted across generations as well maintained and preserved. It is true that certain somatic functions, life style, habitat, behavior, diet etc also play a crucial part in the development or expression of this trait upon arrival of such circumstances when it is needed the most. The vaccine when developed against a pathogen and administered on a vulnerable organism will definitely initiate what we call immune response upon its entry into the body system. This immune response is the mechanism that ultimately protects the organism against that particular infection. We may term it a balancing act and this in a way achieves the neutralizing effect against that pathogen. So, in the present case of Corona virus infection; a vaccine developed and applied on humans will also endeavor to achieve this wanted action and we hope that we are by and large successful in making certain vaccines that can provide maximum safety and in the end humanity is rescued from this deadly pandemic. We all pray for this but even if achieved, this will lead us on a point where we will be positioned face to face with certain questions. The foremost will be that the same nature that provides us with natural immunity from a disease attack; also provides the pathogen with some sort of a lease of life. After all, this also has to survive because it is created by the same Mother Nature that did create us. It also enjoys certain privileges of life. The prime most is the right to life enshrined as the power to survive. No doubt the Mother Nature has definitely provided the pathogen a certain mechanism by which it will overcome this artificial man made barrier. It will incorporate certain changes into itself that will make it more enduring, robust and surviving. It will change for sure even in genetic terms.

In fact, the genetic characteristics that it has acquired during millions of years of its biological phylogeny; will help it to achieve this. It will mutate. It will change the genetic encryption within itself. It already has this power in its genetic system provided by Mother Nature. So, the moral of the story; the development and application of a vaccine against a pathogen will end up in inducing mutation in the pathogen that will empower it to survive against the new unfavorable situation. It is not that it will not mutate in the absence of a vaccine being applied but it will mutate with an enhanced vigor in a situation of the vaccine being used against it. The speed to mutate will surely increase and this may not be the welcome outcome for us but for the forces of life that has preserved life on this most beautiful planet from times immemorial, the same rules of survival definitely apply both in the case of pathogens and hosts alike and this in a way is the beauty of life itself. Another unpleasant development of the situation may be that the artificial vaccines may provide us with immunity against the disease or not but they will surely disrupt the natural immunity balance well implanted and preserved in our natural systems by nature. This fact is further strengthened by the fact that even after a year or more of encounters of man with Corona; nearly one percent of world population has contracted this disease. At least, the available data of WHO and world governments tell us this. This means that till now the Mother Nature has saved nearly 99% of world population from this deadly disease.

This also means that nature has provided us with an immunity cover of nearly 99% at least till far. Can a vaccine provide us with similar or greater security cover, is a million dollar question? On the contrary it will be disastrous if this natural immunity cover gets disrupted upon administration of artificial vaccines and we should keep this in mind when opting for this second alternative. It does not mean that the efforts to develop vaccines should be stopped but emphasis should be on doing this by adhering to strictest protocols and norms in this regard. There should not be rush of any kind to hasten or side jump the rightful procedures in achieving this end. We are witnessing a rat race to develop vaccines against COVID and also we are noticing new strains of virus emerging in various countries. What is the guarantee that these vaccines will be effective against these new strains? Also the arrival of many vaccines in future and the choice of the right one amongst them will create a stage of vaccine anarchy and chaos. Isn't it that our haste in so doing is adding to the instances of emergence of new strains of Corona? Honest and patient reviews on the subject are the need of the hour.

Periodic evaluation: Usually the mortality and preponderance statistics of a disease are calculated on yearly basis but we are witness to a strange trend in case of the present pandemic. Ever since the start of this disease the statistics are being presented on add on routine. The Corona started in December, 2019 and still well in 2021, we are reporting the data of infections as well as mortality on add on practice. The data should have been from December, 2019 to November, 2020 or like from January, 2020 to December, 2020 etc. It should have been on yearly basis and not as continuously adding on.

Concealment: A truth not revealed is concealment and is certainly far more dangerous than a lie. Usually many truths are intentionally and vehemently concealed from public by power institutions. This may be debatable that this is done to benefit people on a larger perspective or it on the other hand, ends in harming their interests? The answer may be anything but truth has a tendency to reveal itself on a given point of time and this fact certainly has its repercussions, may be on the good or may be on the bad. The truth is that Corona has many types and it is also true that many of them are just a common happening and not lethal but this is not revealed upon people. This is also a fact that Corona infects nearly 40-50 crore people in India on an annual and repetitive pattern and this is not a thing of some big concern. The global figure may be as big as 2.4-3.2 billion people.

The concealment usually has a direct relationship with the truth. Generally concealment is the amount of truth not disclosed and this is also a truth that no successful vaccines can ever be developed in case of fast mutating RNA viruses and Corona is such an example. The false hopes and the subsequent crashing of them will also have their usual upheavals; there is no rocket science to know. The data analysis is also a methodology to know the truth. We all in India know that daily Corona cases were soaring i.e. nearly around a hundred thousand or so in the months of August, September and first weeks of October, 2020. There were very strict lockdowns before this interval and restrictions were in a way still in force. But after that many elections in Bihar, Madhya Pradesh and Telangana etc provinces happened and till date mass rallies of political parties are taking place in West Bengal and other parts on a regular basis. There are big "farmer gatherings" around the national capital and also in

various states but even after all of these things gotten and still getting happened, the number of new daily Corona cases has come strikingly lower i.e. less than 20,000 a day and they are fast marching to go even lower than 10,000 cases a day i.e. less than 20 or even 10 percent of previous values. This means that the enforcement of Corona protocols so vociferously advocated by WHO do not have a direct relationship with the spread of Corona and there are certainly other factors affecting the spreadability of disease and this fact should have been revealed and not concealed. The fact is that we need oxygen for living and a sick person needs it the most. Corona patients face difficulty in breathing to the extent that oxygen levels in blood fall to dangerous levels and a little more drop may result in death. This is exactly what we are achieving with face masks. Face masks offer hindrance in oxygen intake although to small levels but this small level becomes fatal in patients with oxygen levels already dropped too low. The concerned patients immediately succumb to suffocation and die even shifted to oxygen support or ventilators afterwards. So, the face masks have a direct relationship with Corona deaths and this fact should be studied and rectified.

Logic speaks from many angles: Sometimes we may not know the truth from the face of it. It lies hidden entangled in strange dialects. We have to dig it out by using various tools of a sort of an analytical methodology. This is general science and there is nothing strange in it and this definitely leads to understand many a phenomenon and reach at satisfactory conclusions. The failure of Corona vaccine to provide a near complete immunity cover against a number of virus strains of this disease will definitely lead us to a way of focusing our efforts on developing a drug therapy against this because the drugs usually do not differentiate among different strains of a virus or bacteria in general and they provide a far bigger and surer security cover. A well propagated logic is frequently used these days in public eye by the so called stalwarts of medical profession in India and also on the world stage that “so and so vaccine will not be effective against the existing and even future strains of virus; there is no reason to believe”. Even this strange logic is extended in case of vaccines that are still not even in clinical trial stages. The propaganda is so elaborate and well executed that everybody just seems to be hundred percent digesting it. The governments have promulgated pandemic laws and rules that guarantee very harsh consequences against anyone just questioning them. Everybody is made so scared and there is no resistance and only acceptance prevails everywhere. Nobody seems to raise even a grass blade of suspicion. The people on very high chairs of national premier medical research organizations sermonize like prophets that people have to believe and apply in day to day life. The governments which have a moral duty to reveal truth on people are siding with these bodies and their bosses; is very strange to watch. Is there some hidden agenda at work? Are there some business secrets at stake? Why has everything become so mystical and weird; there is no justification in sight? The answers should have been straight but they are much entangled. When there is no reason to believe that a particular vaccine will not be effective against the present or future virus strains; there is also no reason to believe that it will be effective for certain? Even the strains that are spreading havoc in other parts of globe can prove resistant to a vaccine being utilized in some other geographical region; may also prove true? But these strange logics are marketing the vaccines well. Is the market place of trade the only and last prevailing truth on earth? This is the truth that demands answer.

The lies can not be covered with the whip of punishing legislations for ever; is also logic to be considered. At least the high organizations and their chairs should not be hijacked by the market forces this way. You can cheat the public which is gullible and can be duped but you can not play with the forces of history. Today or tomorrow, the truth will be out and history will paint you not in good color. A vaccine may falter in next six months or one year if it is put to use by false claims or even the truth of its failure will be covered with iron sheets of prohibitive laws; is a different subject to discuss. But the damage these things will wreck on mankind; will be unable to fathom. Already the truth has become revealed in case of remdesvir and favipiravir (WHO, 2020). Now who will shoulder such a responsibility for bulldozing them on patients already on verge of death and just pushed to extinction by the application of such strong medication upon them by the errors of drug regulatory? Will the Drugs Controller General of India or the bosses of Indian Council of Medical Research or the health minister come out in open and declare the truth to the kith and kin of people forced to death by erroneous use of these medicines? Will such people be ever brought before the process of law and convicted for such sinister and cold blooded murders of innocent citizens who died due the wrong and unwanted use of drugs upon themselves guided by the vile decisions taken by these chieftains of medical profession? We know for certain no such thing will ever happen. This is it that will happen and the twisting of logic and covering of it will only help in saving these people in high chairs. If at all real logic is applied some times, the true story will definitely come out and justice gotten delivered. Hope this happens! Amen!

Drugs are a better choice than vaccines: Drugs are always a better choice. The simple logic is that drugs are used for therapeutic purposes and vaccines for prophylaxis. The same logic guides us to decide that vaccines which are supposed to be applied on healthy subjects; hence they are bound to cover more people because the truth is that number of people actually fallen sick is always a fraction of the total population especially in initial stages of infection. So, drugs end up being used on a small section of people. Even after one full year of interactions with Corona, the total number of people gotten infected from this vicious disease is just around one percent of the total population worldwide. This means that we have to arrange for the therapeutic drug if any for this one percent. But this is not the case with vaccines. They have to be applied on entire people i.e. also for the remaining ninety nine percent. Their magnitude of application is far bigger. Prophylaxis is needed for people who are at risk of the disease and still not fallen ill. But the treatment is for people who have actually gone so. This basic difference decides the scale of application for a drug and a vaccine and this is the substance of difference between the two.

People may argue that it is better to opt for prophylaxis rather to fall prey to infection. The logic is also good. But, it is also true that same purpose can also be achieved with drugs when given in small quantity. The entire scene gets turned turtle when someone falls really sick. Then no vaccine comes to rescue. Only a drug treatment will help. This is a point to be noted. Be a healthy man and fearing disease one may opt for a vaccine but once a patient; he has the one and only one option to go for a drug. And if the disease is a morbid one and invites chances of morbidity, one has to surrender to the use of medicine upon him in order to get saved from death. Even if a disease is low on mortality but it gives agonizing trauma, a

person succumbed to it has to opt for the treatment which can only be provided by the use of a drug. So, given and said, the drug is the thing that comes out for rescuing a person from an ailment and it can also be used in case of opting for prophylaxis whereas a vaccine has no such binary advantages. So, drugs are always a better choice than vaccines and their advantages are simply well known as enumerated. The real problem starts to appear when we have already reached this derivation. Now where it is that we find a drug instead of a vaccine? We know that during Corona period, hundreds of pharma houses initiated the efforts to develop vaccines to counter this disease. Even the governments jumped in and directed its research institutes and universities to join them or even do it on their own. Whatever effort could be put in was decreed to be done. We know for certain that more than two hundred candidate vaccines were in the process to be developed and how many of such projects would see the light of the day and be fully developed and reach the market; is still a question in the lap of future? But no such enthusiasm was seen on the front of developing drug treatments against Corona. Have we ever asked ourselves that what it is that everybody just wants to rush in making a vaccine rather than put efforts at developing a viable drug treatment? The answer may be a difficult one to offer but the truth is that everybody just wants to be a part of the process that promises a yield or at least offers the blinking of a hope in sight. The vaccine can be developed from the pathogen origin which is already there and it provides the solidity of a ground at least on which something worthwhile can be raised or hoped to be raised but there is no such ground in case of a drug being discovered. In case of drug discovery the scope of certainty is always if not undefined but even then very vague.

There is nothing in sight. No hope is there to be relied upon. Only a fruitful serendipity is the answer which is no doubt a thing of very rare happening and it definitely involves a talent that is produced only once, twice or few times in men or women of substance in a span of hundred years or so. At least this is the case with drug discoveries for big diseases. We still do not have treatments for asthma, epilepsy, dengue, AIDS, cancer, diabetes, sleeping sickness and many more. The latest entrant in the list is Corona and we have to find an answer for this also. Luckily, there have been reports of many vaccines gotten developed against it. Hope, they prove effective in stopping infection. But the scale of vaccination seems to be massive in case of this disease and things are still appearing to be unmanageable until this point in time and considering the practical pace of vaccination against this disease; it may take many years to complete this process. And by the time, virus will rejuvenate itself. It will mutate. Then, what will become of the vaccines developed with present day technology of vaccination and the virus stock? We all know that once the virus changes its strain, it in a way, undoes the efficacy effect of vaccine against it. In fact, this is a natural process or a gift of nature provided to it in order to survive the unfavorable environment and the entire genetic apparatus in it is so fitted and conditioned for this purpose. If nature is on its side, then which enemy on earth can stop it from existing? The "essence of existence" in the present case is the power to resist the action of vaccine upon it. So, it mutates and the effect of vaccine is nullified. This may happen after few months. Even it may take years to do so. We have noticed many new strains of Corona in just a span of few months in South Africa, Brazil, UK, Spain etc and many more will definitely emerge in next few months.

Then what will become of the present day developed vaccines? And what is the guarantee that the ones to be developed in future will not have similar fate?. So, drugs are the better choice than vaccines. This is the derivation that should be drawn because they do not bother much to care about the changing strains of virus in general and they offer a far better and stable efficacy scale.

Vaccine immunity may lead to total immunity loss: Vaccines induce artificial immunity but there is also natural immunity in our bodies that protects us from infections as usual and this is a bigger truth of our biological systems that once something is introduced in our bodies by an artificial route; the natural production of it just stops in there. Vaccines provide immunity in our bodies for a fixed time period and after that if the natural immunity is not produced in our bodies against that infection; our life is at a greater risk of infection. So, for a given period of time, we will be left virtually without any immunity against that disease. This carries a big meaning in the case scenario of nobody knowing for sure in the world how long vaccines can induce antibodies against Corona in our bodies?

DNA change invites mutations & new pathogens: DNA change may lead to mutation in an organism; is a known fact. The same purpose is served by RNA change in RNA pathogens. At least a multifold of DNA changes can serve a ground on which a new mutation can be built. If this happens, it affects an organism and its infecting pathogen in two ways. First it may change the immunity status of the organism involved. The immunity against a particular or a group of pathogens may get strengthened or it may get weakened too. It may be affected both ways. Secondly, it may have similar affect on the disease causing capability of pathogen or a group of them. The infection rates in case of such pathogens and host organisms always undergo a change. The power of immunity in organisms as well as the power to infect in pathogens is aptly encrypted in the genetic set ups of them. This ability in both the cases has slowly developed during millions of years of biological evolution in all the species concerned. Almost all big names in the field of science are unanimous on this view. Now why this thing gets to get important is when we find ourselves pitched face to face with certain subtle realities of modern day life. The environments have changed. The pollution levels are dangerously up in most parts of the world. The poison levels of chemicals in gaseous form in air and also in earth strata are well known. The global warming is an established phenomenon. Even new types of radiations like mobile telephony have come up. Even one more dangerous turn has been taken on the front of food and agriculture research. We are faced with a monster of genetic adventurism in crops and livestock.

GM foods or the genetically modified foods are becoming the norm of genetic research on food front. We all know of BT cotton. We also know of BT maize, BT corn, BT brinjal, BT wheat etc. The list is growing. Very soon there will be GM mango, GM orange or BT banana etc. There is a direct or indirect relationship between the genetically modified crops and humans and livestock feeding upon them; may form the matter of debate or not but there is growing evidence as well as universal public belief that these endeavors are progressively throwing us on the face of the reality of genetic pollution in humans and animals as well. This is the reason that genetically foods or even fodders are banned in many countries of the

world. Banning of GM brinjal by the honorable Supreme Court of India is just one such example. Just few months back, a study in Harvard University (Fagny et al, 2019) has established that the preponderance of cancer increases many times when there is even a little tempering with the DNA of organisms involved. This is the danger that genetically modified foods has dragged right on the doorsteps of us. If genetically modified foods are so dangerous, then we can imagine that if this genetic experimentalism gets dragged to another limit i.e. to the limit of getting genetically damaged (GD). Genetically damaged is an entirely different concept from the one of genetically modified? This is more dangerous and undesirable both in magnitude and direction. At least in case of GM, we know about the extent and direction of the genetic change but in case of GD, we do not know anything. This phenomenon has been discussed in detail in cattle (Aulakh, 2020). We cannot even imagine modern day human life without cows. They provide us with milk and meat both. Almost everybody on earth eats milk and milk products on a daily basis. It is certainly not like brinjal which one can eat once a while in a week or month. If cow is genetically damaged, then the danger of humans getting genetically destructed is enhanced to a greater limit. Such genetically damaged humans will be more prone to diseases like cancer and even their immunity statuses will also change. They may become more or even less resistant to many of the present day pathogens that infect them as of today and even there may be chances that some new pathogens or groups of them may also start to infect them which in present date are not able to do so due to the inter species immunity barriers developed and preserved in human genetic material by the agency of immunity status encryption of human DNA.

So, we anticipate more diseases and pathogen attacks on humans and animals as well. Who knows even our crops will attract more attacks too? Our encounters with pathogens; bacteria, virus, fungus or protozoon etc, whatever they will be, will only increase in the time to come. We should be prepared not only to face this but also be ready to counter them with suitable strategies and techniques. Developing appropriate vaccines or drugs against them can be part of such efforts. Only careful and well planned policies and executions will help in this regard.

Revelations: It is usually a matter of time when the real truth starts to unveil. It may take a little more or little less and it may also be true that sometimes it takes much longer but reveals it must. Corona is a new disease and it struck upon the people of this magnificent planet all of a sudden in November, 2019. This is the truth that was hammered upon people by the establishment in all countries. But the fact must be revealed that we knew for certain even well back in 1960's that Corona existed as a virus infecting human respiratory system when it was well established by pioneers like Tyrrel, Hamre and Almeida etc (Almeida et al, 1968). Slowly but steadily, this truth will be revealed on people. The science of today has become a political ball game. The scientists say what the rulers want them to say. Even regulatory follows suit. The drugs are cleared in haste because the establishment wants this. The vaccines are developed at galloping pace and claims justified and cleared even at the cost of protocols. These strategies may be working today or at a point of time but they will hold for ever; only the time will tell. It may be too late when the real truth will dawn and it also may be that by the time it would be meaningless if such a revelation takes place or not? Surely we

will land on a situation in future when the much touted vaccines of today that are so proudly presented as the champions of science; will falter such that many countries will be forced to pull them back from circulation. The virus is mutating repeatedly and that also at a fast pace. So, the fall of vaccines in this case seems inevitable. Only the drug therapies will work and efforts should be focused on the efforts to develop them. Let us come to realize this need of the hour and start working in this direction as soon as possible. The faulty vaccines will only help the virus to mutate faster and turn the disease into a more sinister one. At least the people deserve to know the difference between Corona and COVID. They should be clearly disclosed upon about the real nature of disease. If it is Corona, it is Corona and if it is COVID, it is COVID. This is no big game. The truth should be described as it exists in reality and not presented as entangled, confused and mystified. Otherwise we all know the old saying, "Truth prevails in the end". Let us get it revealed at least before that last point in time.

Conclusion

Corona is by historically accounts, one of the most feared and deadly pandemics, only next to "Spanish Flu". It has already claimed countless lives and the toll in economic, social and humanitarian fields is massive. It is a devastating tragedy by any measure. But the agony and pain of people has been aggravated to the greatest by the truth covering and misinformation piled upon them by the concerned scientific and political authorities. This has only added to the miseries of people. The correct recourse should have been to base the information on true scientific knowledge and reveal it upon people. This may or may not help people immediately but it would do a lot to make them able to bear the brunt of the disease and face it in a much clearer and better way.

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GLOSSARY OF ABBREVIATIONS

BT: Bacillus thuringiensis gene inserted crop
 COVID: Corona virus disease
 GD: Genetically damaged
 GM: Genetically modified
 ICMR: Indian Council of Medical Research
 SARS: Severe acute respiratory syndrome
 MERS: Middle East respiratory syndrome
 RTPCR: Reverse transcription polymerase chain reaction
 WHO: World Health Organization

REFERENCES

- Almeida JD, Berry D, Cunningham CH, Hamre D, Hofstad MS, Malluci L, Macintosh K, Tyrrel DA. 1968. Virology: Coronaviruses. *Nature*. Vol. 220(5168):650.
 Al Jazeera. News item on 12th October, 2020. <https://www.aljazeera.com>

- Aulakh BS. 2020. GD COW: A phenomenon much different and dangerous than the GM Cow. *Asian Journal of Science & Technology*. Vol. 11(01):10665-10671.
- Estola C. 1970. Coronaviruses, a new group of animal RNA viruses. *Avian Diseases*: 14(02):330-336.
- Fagny M., Platig J., Kuijjer M.L., Lin X., Quackenbush J. 2019. Nongenetic cancer risk SNP's affect oncogenes, tumor suppressor genes and immune function. *British Journal of Cancer*. December, 2019 publication.
- Hamre D and Pocknow JJ. 1966. A new virus isolated from the human respiratory tract. *Proceedings of the Society for Experimental Biology and Medicine*. Vol. 121(01):190-193.
- WHO. News item on 20 Nov, 2020. <https://www.who.int>
- Tyrell DA and Bynoe ML. 1965. Cultivation of a novel type of common-cold virus in organ cultures. *British Medical Journal*. Vol. 01(5448):1467-1470.
- Wikipedia. Coronavirus. <https://www.wikipedia.com>
