

Covid-19 and the Role of Pharmaceutical Market

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Abstract:

Global Economy could shrink in almost all Covid 19 affected countries. The Pandemic starts from China and hits Europe, America to Asia. Even according to the data Corona Virus hits more in USA and Europe rather than China. All the Pharmaceutical companies are now racing for the solution as the corona virus pandemic hits. The top five Pharmaceutical firms belong to USA and UK itself like GlaxoSmithkline, Pfizer, Merck and Co., Sanofi and Seqirus. They account for more than 85% of vaccines industry worldwide. Vaccines are the major business for the Pharmaceutical firms. According to WHO the overall vaccine market is \$26 billion in 2018 (Bank, 2018) and \$54 billion in 2019 and have almost double from 2014 (Uttley, 2020). The global market of testing Kit and Vaccines are so huge and the top four multi players belongs to USA and UK including South Korea. But the question arises about accuracy, sensitivity and specificity of these tests? And how much effective will be the upcoming vaccine? As a report says the adverse effect of vaccine is more than the disease itself causes. The covid 19 outbreak has also become boon for the pharmaceutical companies and creating fear mongering agenda to push the market of vaccine, mask & sanitizers among the people of this world. This Paper aims at verifying the accuracy of testing procedures, pushing agenda of vaccination and its causes and alternate medicine. This Paper is based on secondary data and qualitative in nature, the data has been gathered from different authentic sources, websites and research paper from various journals.

Keywords — CORONAVIRUS, PANDEMIC, PHARMACEUTICAL MARKET, ALTERNATE MEDICINE..

I. INTRODUCTION

Covid-19, an Introduction:-

Covid-19 is an infectious disease caused by the family of Corona Virus. It spreads mainly through saliva when an infected person coughs or sneezes. Those people infected with corona Virus feel mild to moderate respiratory problems. There is no vaccine available for covid 19 but strict precautions should be taken.

The corona virus 2 (SARS-CoV-2), emerged from Wuhan City of China. SARS-CoV-2 is the family of SARS Virus which emerged from same country China in 2003. The Origin source of this virus is unknown but similar to transfer from bats to human and after that transfer among human to human has been confirmed widely.

Pharmaceutical Market:-

After the pandemic of covid 19 the big Pharma companies once again became active as they did

same in every several years of pandemic occurrence. As you know there is large no. of medicines banned in other countries but is allowed in India. There are such safety and efficacy issues in those drugs. Some medicines are Nimesulide, Oxyphenbutazone, Pergolideetc which causes reducing the number of blood cells, liver failure, Heart problem and many more. This is a matter of concern that Why a large number of Pharma companies sell their toxic drugs in India and developing countries because they get right to sell their medicines in these markets (Times, 2016).

2) Covid 19 and the Untold story of RT PCR Test:-

The widely used method for the Corona Virus test is RT PCR test. As per the medical expert RT PCR test is more accurate than any other test because it looks at the RNA of Virus. The another test for the novel corona virus haven't been fully tested and antibodies testing used for measuring antibodies in our blood so whenever we're infected with virus our body generates antibodies to fight with these

virus. Antibodies test took some time to show the accurate test.

(a) Brief History of PCR test:-

Karymullis, An American biochemist, invented the PCR technique since 1985. Karry Mullis got Noble prize with Michael smith in chemistry in 1993. As per Food drug and administration, PCR test is not for diagnostic purpose but for emergency use only. According to the centre for disease control and prevention (CDC) RT PCR test is not accurate test and it doesn't rule out other viral or bacterial infection. This means if you've another Viral or Bacterial infection at the time of testing this test may show false positive result. False Negative and False Positive test are more common in RT PCR test. PCR test is for genetic sequencing of the virus, but it is not for the test of virus itself (Mullis, 1993).

Results are for the identification of 2019-nCoV RNA. The 2019-nCoV RNA is generally detectable in upper and lower respiratory specimens during infection. Positive results are indicative of active infection with 2019-nCoV but do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease. Laboratories within the United States and its territories are required to report all positive results to the appropriate public health authorities.

(Fig. 1)Source: - Centre for Disease Control and Prevention

Food and Drug administration has put the PCR test for Emergency use only i.e. not for diagnostic purpose but for research purpose only. Emergency Use Authorization (EUA) means use of unapproved medical products and equipments, to diagnose, treat, or prevent serious or life-threatening diseases.

FAQs on Emergency Use Authorizations (EUAs) for Medical Devices During the COVID-19 Pandemic

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During a public health emergency, the FDA can use its Emergency Use Authorization (EUA) authority to allow the use of unapproved medical products, or unapproved uses of approved medical products, to diagnose, treat, or prevent serious or life-threatening diseases when certain criteria are met, including that there are no adequate, approved, and available alternatives.



(Fig. 2)Source: - Food and Drug Administration (Administration, 2020)

A professor of Pharmacology, David Kroll from University of Colorado pointed out the efficacy of PCR test and told that one of the chemical used in this test also responded to non corona virus genetic material so if any normal active virus is present in the body, the test shows it a corona positive and this leads to many false positive test (pappas, 2020).

The CDC's original failed test for the coronavirus was a PCR test. It did successfully detect SARS-CoV-2, said David Kroll, a professor of pharmacology at the Skaggs School of Pharmacy at the University of Colorado Anschutz Medical Campus. But one of the chemicals used in the test also responded to non-coronavirus genetic material as if the virus were present — returning false positive results. After this failure, the Food and Drug Administration issued [Emergency Use Authorizations](#) for private labs and hospitals to develop their own coronavirus PCR tests. These tests still have to meet the CDC's bar for accuracy, but they don't have to go through the long process of typical FDA approval. As of March 30, 20 emergency authorizations had been granted for different tests. The up-to-date list is [on the FDA website](#).

(Fig. 3)Source:-Live Science

b) Drawback of PCR test for Corona Virus:-

- There are some Reports published in “Southern weekend” in China that many people getting consecutive negative test for six times and positive in seventh. Dr Le Wenliang (first doctor to get diagnosed with Corona Virus) himself tested for corona and had come back negative test on multiple times before he had finally been diagnosed. (Weekend, 2020)
- There are some other reports in Journal radiology from Hunan Province of China concerning about

false negative test that almost out of 167 people, 5 tests are showing false negative for RT PCR test. (Radiology, 2020)

- There is also some more concern over testing from Singapore and Thailand. (Gallagher, 2020)
- There is matter of concern that the large amount of our money goes to FDA approved emergency use of corona virus test for diagnostic purpose and it seems that there is a motive of earning profit rather than doing authentic test by Pharma company which seems to be not authentic in the platform of specificity and sensitivity of test.

3) Covid 19 and Co-infection with other illness

If we look into the data of current statistics Worldometer only 0.9% of people died having no pre existing symptoms of any disease or symptoms of Coronavirus. Pre Existing symptoms like cardiovascular disease, diabetes, Cancer, Chronic respiratory illness and Hypertension are one of the major reasons for death among corona patients. So there is much more matter of concern about testing procedure which picks other virus as corona virus while co infection and with other bacterial or viral infections.

PRE-EXISTING CONDITION	DEATH RATE confirmed cases	DEATH RATE all cases
Cardiovascular disease	13.2%	10.5%
Diabetes	9.2%	7.3%
Chronic respiratory disease	8.0%	6.3%
Hypertension	8.4%	6.0%
Cancer	7.6%	5.6%
no pre-existing conditions		0.9%

(Fig. 4)Source: - WORLDOMETER

LITERATURE REVIEW:-

- RT PCR Test:-A professor of Pharmacology , David Kroll from University of Colorado pointed out the efficacy of PCR test and told that one of the chemical used in this test also responded to non

corona virus genetic material so if any normal active virus is present in the body, the test shows it a corona positive and this leads to many false positive test. (pappas, 2020)

- Role of Vaccine market:-Top Pharma giants are facing legal lawsuits. Many of these companies were involved in illegal activities which brought legal actions for them by the court due to adverse reactions of the vaccines and medication. GSK or Glaxosmithkline settles drug fraud case of \$3 billion in USA (Ingram, 2012). Pfizer was fined \$2.3 billion for illegal marketing of drug (Rubin, 2009). Merck pays \$830 million on unapproved vioxx pain medication (Pierson, 2016). Sanofi settles \$315 on Genzyme drug (DeAngelis, 2019). This is a matter of concern that Pharma companies are selling their product without any pre clinical testing or approval from appropriate agencies. The ecosystem of Pharma companies is so strong that no one can think to challenge them.

- Role of Controlled information:-Social media is the main and first source of information. President of Google ‘Mary Cloe’ is also Board of director of Merck Pharma Company. Anthony Fauci,(Head of NIAID) daughter’s Alison Fauci works for Twitter as a software engineer (graham, 2020). Social media platform like Facebook, Amazon, Youtube and pintrest pulled out Anti Vaccine content since 2019. If really vaccine doesn’t cause injury then why all are pulling anti vaccine reports from all the platforms of media. Why is social media trying to control the information about vaccine?



Digital marketer Mallochimp bans anti-vaccination content

Earlier in 2019, Amazon pulled anti-vaccination documentaries from its Prime Video service and several books from its marketplace. Facebook began to stop advertising that spread “vaccine hoaxes” and said it planned to reduce the visibility of vaccine misinformation shared on its platform. YouTube also disabled advertising on anti-vaccination videos and lowered in ranking health misinformation content in its search results. Pinterest has blocked all vaccine-related search results.

These denials by the platforms have come as a shock to anti-vaccination advocates who for years were served well by recommendation algorithms that boosted controversial and conspiratorial content, such as the underlying and discredited notion that vaccines cause autism, a unifying theory for anti-vaccination groups.

(Fig. 5)Source:- NBC News

OBJECTIVES:-

- To analyse the effectiveness of PCR test.
- To understand the effectiveness of alternate medicine.
- To understand the negative impacts of mask and sanitizer.
- To understand the role of Pharmaceutical companies during the Covid 19 pandemic.

RESEARCH METHODOLOGY:-

The Research paper has been done by using secondary data source. The data is collected through different authentic sources, websites and research paper from various journals. The Research paper is based on qualitative in nature.

FINDINGS:-

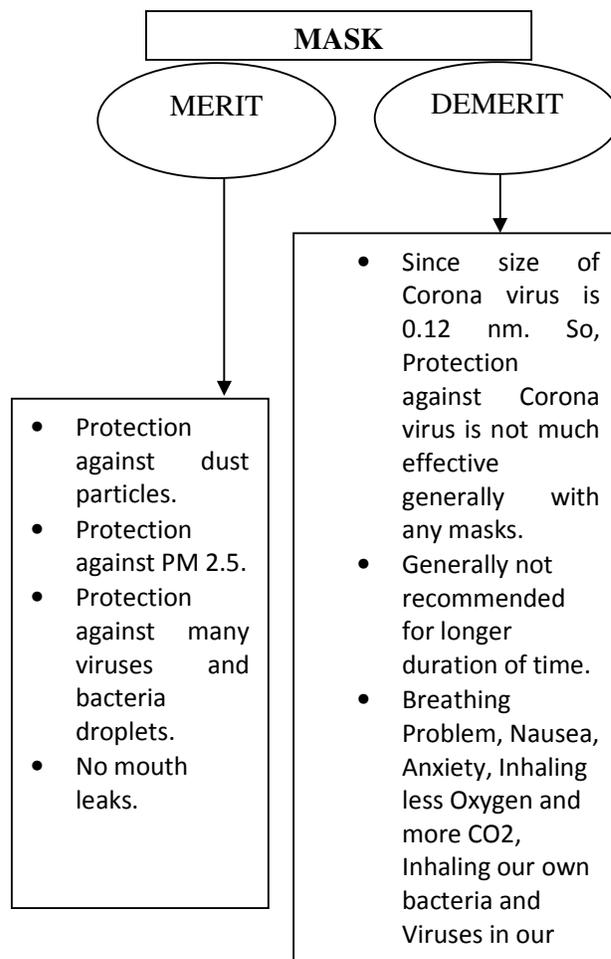
➤ **Vaccination:-**

It enhances artificial immunity but suppress natural immunity. Many vaccine contains Aluminium, Thimerosal(mercury) sugar, gelatin and more (Diseases, 2019). There is a report in India in 2009 that Bill and Melinda Gates foundation about involuntarily experiments of vaccination on 30000 tribal children in Telangana, Andhra Pradesh and Gujarat. Mostly were Girls and they took illegal consent from them for vaccination. After Vaccination, seven

children died and many girls fell ill by HPV or Gardasil vaccine manufactured by GSK and Merck co. The matter is in front of Honourable Supreme Court of India for decision under Justice DipakMisra and V GopalaGowda (Kumar, 2014).

Cloth Mask and Medical Mask:-

There was a research in Hanoi, Vietnam in 2015 about the efficacy of Cloth mask and Medical mask. Research was published in British Medical Journal (BMJ) and the conclusion was Penetration of cloth mask by a particle was almost 97% and the penetration of particles by medical mask was 44%(C Raina MacIntyre1, 2015).



According to CDC Hand Sanitizers are not as much effective as people think. CDC reports suggest that hand sanitizers might not remove or inactivate harmful pesticides and chemicals from hands. It is not effective in greasy or soily hands. In one study People who are using hand sanitizers had increased level of pesticides in the body. So, CDC suggests that soap and water are more effective than hand sanitizers at removing germs (Prevention, 2020).

➤ **Alternate Medicine:-**

After the success rate of Hydroxychloroquine medicine, India is now working on alternate medicine. Since, Hydroxychloroquine is made from the bark of Cinchona Plants (Plants grow in large number in Darjeeling of Indian State). There is an ongoing collaborative study of DAILAB at Indian Institute of Technology (IIT) Delhi and National Institute of Advanced Industrial Science and Technology (AIST), Japan in Covid 19 medications. Traditional medicine of India i.e. **Ayurveda** has been practised since centuries. Ashwagandha and Propolis could be potential drugs against Covid 19. Ashwagandha is also known as immunity booster. The Researchers told these two natural drugs may offer some preventive or even therapeutic value (DELHI, 2020).

SUGGESTIONS:-

No Vaccine or Safe Vaccine: -

Vaccine may also have side effects, if not then why Vaccine Injury Compensation Program of USA paid more than \$4 billion dollar to the victims of vaccine injury families. This is a matter of concern that safe vaccine policy should be implemented. There is a need for strong surveillance independent committee for implementation of safe vaccination program.

Fiscal Year	Number of Compensated Awards	Petitioners' Award Amount	Attorneys' Fees/Costs Payments	Number of Payments to Attorneys (Dismissed Cases)	Attorneys' Fees/Costs Payments (Dismissed Cases)	Number of Payments to Interim Attorneys	Interim Attorneys' Fees/Costs Payments	Total Outlays
FY 2019	663	\$190,217,707.84	\$18,961,247.55	102	\$4,791,157.52	65	\$5,457,545.23	\$225,457,657.94
FY 2020	470	\$152,191,170.84	\$12,768,814.08	81	\$3,743,822.67	53	\$3,432,589.46	\$172,136,196.85
Total	7,311	\$4,036,492,464.05	\$218,832,068.65	6,535	\$80,643,379.92	642	\$41,704,728.41	\$4,385,672,580.43

(Fig. 6)Source:-National Vaccine Injury Compensation Program

➤ **Promoting Alternate Medicine: -**

India is a home of indigenous treatment and medications of Ayurveda and Homeoprophylaxis (Homeopath) practiced since centuries. People republic of Madagascar also offers herbal medicine for Covid 19 to its own country along with Nigeria and African countries. President of Madagascar also Slams WHO for not endorsing its Ayurvedic and Herbal treatments (Tih, 2020).

Principal secretary of health Gujarat(India), Ms Jayanti Ravi informed in a press conference that ayurvedic medicine was given to 3585 people and Homeopathy medicine to 2625 people in a quarantine centre Gujarat and Results are shocking that only 11 people tested positive because they were unable to complete the dosage and rest all of them were negative to Virus (Biswas, 2020)..

➤ **Mask for shorter span of time: -**

Masks are effective but for short period of time. Wearing mask for longer period of time could leads to serious illness like nausea; respiratory problem; lack of oxygen in blood, brain and body. The World Health organisation says that there is no need of wearing face mask for healthy people (NAFTULIN, 2020). CDC also says that we have no any data that can quantify risk reduction from Covid 19 by wearing a mask. So, Mask is not so much effective for the viruses. There is a need for further study on Corona warriors about their health complications while wearing a mask for a longer period of time.

The U.S. Centers for Disease Control and Prevention (CDC) told Reuters via email that wearing masks is recommended as a way of strengthening social distancing, but they do not have data to measure how this affects the risk of transmission.

“CDC can’t confirm the accuracy of the numbers reflected in this image.

Currently we are not finding any data that can quantify risk reduction from the use of masks”, a CDC spokesperson told Reuters.

(Fig. 7) Source: - Reuters.com

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