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Opinion

Are the Vaccines Ultimate Answers to Covid-19?

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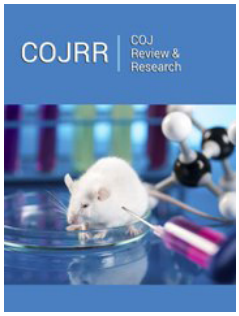

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Introduction

According to a report by the Israeli Health Ministry, the efficacy of the US pharma giant Pfizer's Covid-19 vaccine in preventing infection has dropped to 39 per cent. This efficacy figure is based on testes carried on between June 20 and July 17 (numbers not specified) is down from an earlier estimate of 64% two weeks ago. The Delta variant across Israel - show that those fully vaccinated have only a 40.5 per cent chance of avoiding symptomatic COVID. The delta strain of the COVID virus, however, reportedly appears to be responsible for the surge in cases around the country despite Israel's rapid inoculation campaign that saw over 5.7 million Israelis receive the first jab, and over 5.2 million receive the booster shot as per this report from Times of Israel [1]. India has reported a little over 26,000 cases of Adverse Events Following Immunisation (AEFI) and 488 deaths linked to post-vaccination complications between January 16 and June 7, according to government data accessed by CNN-News18. Reports exist that this efficacy of these vaccines is not more than 9 months and revaccination may be needed thereafter [2].

From the above reports it is clear that these vaccines are not the ultimate answer to COVID-19 since they only create immunity and do not eliminate the affecting virus. Further, the variants are also continuously increasing. As peer a report from Ludhiana Tribune, the death caused by Alfa variant this year was only one while all other deaths were from Delta variant. To have 100 per cent safety from COVID 19, there is an essential need to eliminate virus [3].

Pandemic of COVID-19 is returning in waves; second wave is about to be over and the third is expected by September. To treat COVID, vaccines have been researched and inculcated the world over. As of 23 July 2021, a total of 3,605,386,928 vaccine doses have been administered globally, as confirmed cases of COVID-19 are 192,284,207, including 4,136,518 deaths, reported to WHO [4]. However, the accuracy of treatment has remained doubtful since deaths after the doses of vaccines patients have been reported dying. Further the new variants are emerging which make even these vaccines unsuitable to provide immunity since these vaccines are only to provide immunity and do not eliminate the virus altogether. Thus, there is no permanent solution as yet to treat or eliminate coronavirus. Permanent solution lies in the elimination process of these viruses and not only in providing the immunity. One permanent solution lies in nanotechnology where it is suggested that the Nanobots could be effectively used for the destruction of the virus before it could damage a human body. Programmed Nanorobots inserted in the body or even controlled externally will be able to kill the hordes of the multiplying viruses. The how and why of Nano robot is explained for further field research on the subject.

Nanobots

Nanorobotics is an emerging technology field creating machines or robots whose components are at the scale of a nanometer (10-9 meters) [2-7]. More specifically, nanorobotics refers to the nanotechnology engineering discipline of designing and building nano-robots,

with devices ranging in size from 0.1 to 10 micrometres and constructed of nanoscale or molecular components [5,6,8,9]. To counter COVID19 and its variants we need nanobots. Functions needed for nanobots are actuation, sensing, manipulation, propulsion, signalling, and information processing at the nanoscale. DNA strands in Test Tubes can be used for computer programming of nanobots to activate these by logical AND gates for starting the function of navigation. After its entry in the host strand, the payload will open a socket for remote control, like conventional hacking. Replication starts from the payload to replace worn-out units.

Advantages of Nano-bots over vaccination:

1. Nanorobots aim at the elimination of roots while vaccines aim only at increasing immunity.

2. Elimination of coronavirus does not allow its reproduction or multiplication and the disease is eliminated altogether. This is not the case about vaccines where re-emergence or reactivation of coronavirus has been resulting in death even after vaccines.

3. In case of some healing nano-robot is capable if drug delivery systems with increased bioavailability to the exact place of infection. Nano-robots have the ability to deliver payloads such as drugs, or healthy cells to the specific site. Vaccines are meant for the body treatment and not for individual cells.

4. Targeted therapy such as only malignant cells can be treated by nano-robots which is not the case of vaccines

5. Fewer mistakes on account of computer control and automation than the vaccination

6. Nano-robots can reach remote areas in human anatomy which may not be operatable at the surgeon's operating table.

7. As drug molecules are carried by nano-robots and released where needed the advantages of large interfacial area during mass transfer can be realized.

8. It is a non-invasive technique.

9. Computer controlled operations with robots fine tune the amount, frequency, time of action.

10. Better accuracy.

11. Minimizes undesired side effects.

12. Incisions harm tissue layers, which take quite a long time to heal. Minimal or no tissue trauma.

13. For certain vaccines painful anaesthesia is used to limit the pain to a great extent, yet it is only for a short time.

14. Considerably less recovery time.

15. Less post-treatment care required.

16. Continuous monitoring and diagnosis from the inside.

17. Rapid response to a sudden change.

18. Nanorobots can store and process previous data, identify patterns, and hence, help to predict the onset of an ailment.

19. Nanorobots can guide externally or as per program, targeting specific locations.

The disadvantages of Nanorobotics are however when different nano-robots are inserted to cure different diseases, the clusters may be formed inside the body. The research and installation cost is quite high [10].

Research in Nanobots

Nanorobots are already on the research thresh hold in the following fields

A. Treatment of cancer replacing chemotherapy; delivery of therapeutic and imaging agents for cancer

B. Dental treatment including surgery

C. DNA Origam

D. DNA Sensors as Biosensors

E. Eye surgery

F. Nanogene therapy

G. Health Monitoring

H. Bye pass surgery

I. Treatment of Gout

J. Tissue reconstruction therapy

K. Other Delicate surgeries

L. Information delivery to the brain and many other medical applications.

Summary

Vaccines are not the ultimate solution for Corona virus since virus must be eliminated rather than making the body immune. No vaccine will be able to make immune for all the strings or variants or virus. Nano robots are already on the threshold and require a concerted effort to make these capable for eliminating corona virus. Though both research and initial testing is very costly but with very large-scale mass production it will become quite cheaper even cheaper than the present vaccines. The research is already on certainly laboratories in USA and UK laboratories. Scope of the research must be further strengthened through government funding. It is an essentiality hence must be given due attention at war footing. This will save the huge amount spent on billions of vaccines which may have to be repeated each year.

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