Passive immunotherapy using approved vaccines combined with lockdown, as essential parts of the community medicine and public health to survive and even beat COVID: A viewpoint commentary

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Mass vaccination campaigns are still underway to help in combatting the COVID-19 pandemic but timely production and distribution of approved vaccines is becoming a major unresolved problem worldwide. Meanwhile some new generation of vaccines, developed based on the characteristic profiles of the viral spike proteins and when deployed in the planned mass vaccination studies in the UK were found to be highly effective, to slow down the rate of hospitalization and to save life, Where the use of artificial intelligence and newer technological tools in big data and patterns analysis, were instrumental that we could not do without. Recently, however some very rare thrombotic adverse effects [less than one per million] in association with the use of the AstraZeneca and Johnson and Johnson vaccines identified that have raised some public alarm regarding the Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT). Interestingly there are some pathological and clinical similarity between the well-established negatively charged Heparin-Induced Thrombocytopenia (HIT), that we are familiar with and VITT, that mostly occurs in some young predisposed female below the age of 30 but it is worthy to highlight that the potential for vaccine-inducing blood clot is comparatively at least 6–10 times lower than by the infection – induced thrombotic events, by the on-going coronavirus variants. Meanwhile as a cautionary measure VITT has been listed as a very rare side effect of the vaccine immunotherapy, much in line with the use of some antiviral and anti-inflammatory drugs and in fact the zero risks in any therapeutic intervention against CoV-2 variants do not exist, but considerable variability observed in the host physiological response to vaccines and to CoV-2 infection – induced hypercoagulability. The development of a clot, at the early stages of the inflammatory thromboembolism can be easily contained but severe infection-induced organ injury with fatal outcome, without the use of vaccines as preventative or therapeutic intervention, are often beyond clinical repair. Nevertheless, on the basis of the benefit versus risk analysis, the use of any approved vaccines, including AstraZeneca– types of vaccines, including Janssen, dictates without of any question that there is no need to overturning the unreturned stone. In fact, in this context there is a change of policy in the USA as after a week of fears and hesitation, they finally opted to pursue again the successful rollout of the Janssen vaccine, the first one dose vaccine design, and it is now back for use as a new armature to BEAT COVID and expectedly there is no changes in the UK rollout protocols are made due to fear of very rare potential side effects as almost 50 million doses of the types vaccines have been administered to the UK population without any major severe side effects. Clearly the use of more effective communication skills are essential to overcome high levels of vaccine hesitancy that still exist in some part of the world and some smart and intelligence led technologies and machine learning tools are essential to identify the best practice, despite
the enormous progresses that we are witnessing have been made with success on passive immunotherapy to survive CoV-2 variants and to save lives[1-8]. Currently attentions are focused on the development of targeted vaccines against variants and some booster bioproducts free from autoantibodies, activated complements and cytokines, as a safer and more effective coronavirus convalescent plasma-derived alternative therapies [9–15]. The journey in this direction is already begun but we need some urgent clinical trials to clearly establish their usefulness in the current health care system with more certainty, in particular in areas of poor economic infrastructure [16].

References

6. Seghatchian J, Lanza F (2020) Convalescent plasma, an apheresis research project targeting and motivating the fully recovered COVID 19 patients: A rousing message of clinical benefit to both donors and recipients alike.

16. Smit Sibinga CT, Abdella YE, Seghatchian J (2020) Poor economics - Transforming challenges in transfusion medicine and science into ...