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RESEARCH ARTICLE

NEED FOR RECALIBRATION OF COVID IMMUNIZATION SCHEDULE IN ELDERLY?

Dr. Sonia Puri[1], Dr. Ravneet Kaur[2], Dr. Shreyas Mishra[3] and Dr. Tulika Garg[4]

1. Associate Professor, Department of Community Medicine Government Medical College and Hospital, Chandigarh.
2. Post Graduate fellowDepartment of Community Medicine Government Medical College and Hospital, Chandigarh.
3. MBBS Intern Government Medical College and Hospital, Chandigarh.
4. MBBS Intern Government Medical College and Hospital, Chandigarh.

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Abstract

There's a need to reassess the COVID immunization schedule in elderly and especially in those with co-morbidities owing to their weaker immune response to vaccines. Also, the immunity against vaccines wanes off earlier in contrast to younger population. This in turn leads to significant impact on the physical, mental health and quality of life of the elderly. Hence, they even after getting vaccinated, find themselves in a constant state of fear of reinfection with this deadly virus.

Introduction:-

"Would ever I live my life happily as ever before'' narrated a 66 year frail woman on being examined by a physician in Geriatric OPD in 2021. Although the woman was looking fine apparently but no can assess an individual's internal contemplations and that was the moment when she elaborated in depressed tone, how COVID19 pandemic turned her life upside down.

Miss Neena, a chronic sufferer of hypertension, diabetes and dyslipidemia for the past 24 years,contracted mild symptomatic COVID infection 4 months back. It forced her to stay indoors in continuation to a long unending lockdown period. COVID19 has afflicted all age groups however large sufferers have been the co-morbid elderly population. There is no dearth of data corroborating to fact that COVID19 long term effects are amplified exponentially in elderly.[1] And a devastating preponderance of cases and deaths have been evident in them.[2]

After being quarantined for two weeks, she again had fever a month later. It was persistent with varying grades. She underwent a battery of investigations, majority were in normal range except for a mild fall in leucocytes, raised C reactive Protein (CRP) (86MG/L) and mild increase in prolactin levels(1.4ng/ml). Hardly had she recovered when again she suffered of Enteric Fever after 2weeks, may be because of jeopardized immunity. She got herself immunized against Covid, 4 months later. But this was again followed by episodes of fever off and on.

As per the Center for Disease Control and Prevention (CDC) guidelines, a time span of 90 days is permissible for getting Covid vaccine after natural covid infection.[3, 4]. World Health Organization (WHO) and Government of India (GOI) have even suggested six weeks time gap between natural infection and immunisation[5]. The safety and efficacy of covid vaccine in elderly is still questionable as in majority clinical trials, they were excluded. In some of

Corresponding Author:- Dr. Sonia Puri
Address:- Associate Professor, Department of Community Medicine Government Medical College and Hospital, Chandigarh.

the studies it has been elucidated that owing to immunosenescence and inflamm-ageing, the neutralization potency is suboptimal in contrast to robust response seen in younger population post covid. This also makes them more vulnerable to the variants.

A recent research study elaborated that immune status in elderly starts waning after two weeks of second dose.[6] In addition, the presence of co-morbidities including obesity, diabetes, hypertension, cardiovascular, lung disease and cancer accompanied by immunocompromised state, tissue damage predispose to high rates of mortality.[7]

There have been many cases where elderly with co-morbidities have succumbed even after 2 doses of covid vaccine. Hence, many countries globally, like South Korea, USA etc.[8] have already rolled out booster doses for those suffering of co-morbidities and other vulnerable population. CDC is also backing up for the booster shots. As COVID is a newer disease, new concepts come up each day, the guidelines, treatment protocols are changing frequently. Then why not to even reconsider the today's guidelines of immunization especially in elderly.

As covid is an evolving disease, the nature of immune responses are still unclear. Some researches support it with lifelong immunity whereas other says it wanes off with time. Hence, it's imperative to keep our options open for any new discoveries. Also there is lack of clarity regarding a safe and immunologically effective covid19 vaccine strategies in elderly. "One size doesn't fit for all"
Hence, it pushes us to rethink:

1. If the same immunization schedule should be followed in elderly and especially in those with co-morbidities?
2. Should we opt for assessment of antibodies level after COVID infection in elderlies, who are keen to get vaccinated early after natural infection?
3. Or strict adherence to immunization schedule as mentioned in guidelines of CDC/ WHO should only be done.

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