

Vaccine Application and Rethinking for Current Situation

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Vaccination application is science study in medicine of Physics, Microbiology, Immunology and Clinical successful benefit in common population for preventive diseases; as I previous working experience [1,2], vaccination can apply to use from new born to adult for some diseases as smallpox, leprosy, HIV or influenza epidemic.

Vaccine is the method to protect person from disease and have therapy effect ahead before disease happened at higher rate possibility; vaccination may use in healthy and diseases situation for giving protection cofactors as antibody or protein to defend disease or decrease the serious degree; these diseases include autoimmunity disease, infectious disease or preventive required. Also, some diseases named as epidemic Measles, Whoop, diphtheria or Tetanus, epidemic encephalitis, or Hepatitis A and these diseases usually happened during Infant term or some at teenage ages. As the requirement by Medicine, many vaccine apply are at age stage in legal at some area.

Vaccine produced from the extract material from the blood zoo or human serum or germ others; vaccines contain a microorganism or virus in a weakened, live or killed state, or proteins or toxins from the organism [3], sometime with found antibody which may defect the disease. Vaccination is the administration of a vaccine to help the immune system develop protection from a disease; as the example for the mixed vaccine of Whoop, diphtheria or Tetanus, which requirement to applied at the birth age at 3 months till 6 years old children, usual 3 to 12 months finishes three muscular vaccination; the mixed vaccine include attached non cell whooping vaccine, diphtheria and tetanus in toxic vaccine with immune effective observed. Vaccine may have adverse side reaction, then which are possible slight or less serious for different vaccination type.

In history, an English physician and scientist [4] pioneered and created the smallpox vaccine, E Jenner demonstrated the immunization and the method against the smallpox in the popularity, which was the world's first vaccine; In the latter part of the 20th century, about 150 years after Jenner's death in 1823, smallpox would eventually be eradicated after a massive surveillance and vaccination. Louis Pasteur a French biologist, microbiologist and chemist had mentioned for his discoveries of the principles of vaccination and pasteurization, Current, many sequence scientific breakthrough in immunization and diseases prevention can be traced back to L Pasteur [5]. Reviewed back to 1819 Epidemic Influenza and overcome from the diseases issue, influenza caused the disease by virus infecting the respiratory tract, which epidemic swept the world in 1918 killed an estimated 50 millions people, and one fifth of the world population was attacked; the virus was a new influenza A virus subtype H1N1, to overcome the pandemic from contagious, influenza vaccination had made limitation of epidemic.

I have been in the group for streptococcus vaccine produce and expand clinical application program about prospective Surveillance on antimicrobial resistance and serotypes of streptococcus pneumonia and disease burden; since 2007 - 2008 being high level doctor worked at children hospital, I was for the responsible investigation at the side of China, cooperation with Korea investigator JH at the

Asian Network for Surveillance Pathogen Resistant ANSORP group, the program has also supported by Wyeth Company at the United States of America. At the letter in November 2007 to the JH Doctor in Korea, I wrote the words to express the meaning about the study in prevention disease ahead condition, “recently I thinking of how to work effectively on the project approached by the uniting several pediatrics hospital, and how fast of it being possible to produce streptococcus pneumonia PS vaccine suitable to Asia or China, sure, there are lots of work to do, then, we are still thinking the PS project supported by your organization is a good way to make contribution to the study of the PS vaccine and surveillance”.

During many years observation I usually think the reasonable meaning to use vaccine application to preventive some disease happen ahead occurring or transfer in population; do the diseases real broke persons 's life once get transfer, the answer is certain for sure; for the example as Leprosy, Typhoid, HIV or Japanese Encephalitis happened before.

The vaccination therapy strategy belongs to the preventive medicine, the subject type medicine has deferred to preventive diseases, to eradicate hurts from organs or accident to protect individual or mass population in healthy and hygiene behavior. At the textbook pages, there have several programs to use vaccine procedure as when to use BCG, OPV, EBV or MV. Some vaccination can use at birth time to adult age depending prevention requirement as I was last time to use vaccine for DPT was about 2004 in the United States of America and the last time to use MMR vaccine was in 2012 in China when I worked at hospital for being Pediatrician.

Currently COIVD Epidemic in the world near two years lasting [6], under the research in medicine about the disease, now it is in vaccine application. I have written the commentary article 2020 on the Lab Identified Methods and Clinical Application for Current Corona Virus Issue, which published at the United Kingdom Press EC Pulmonary and Respiratory Medicine [6]. According to clinical observed, some people infected with the COVID-19 virus has Lab methods detected, and no special available treatment for the infection; since COIVD was a New Coronavirus 19, as other Coronaviruses, there are RNA viruses with an envelope and a linear single-stranded positive strand at high recombination rate between RNA and RNA, and the virus mutates due to this high recombination rate, after recombination, the RNA sequence and protein composed of amino acids has changed accordingly and till antigenicity, so the original vaccine and immunity has in difficult to make vaccine incubation now. This year, through hard working, there are vaccine available to apply to people, the vaccine produce by using virus mRNA to accelerate the COIVD-19 vaccine process, The ingredients used in the mRNA vaccines developed by Pfizer and Moderna are simple as well as safe delivery to initiate immune response. However, there still exist queries about the issue: how many people are getting vaccinated, what about effective and side effect, who shouldn't be vaccinated, those queries belong to the Epidemic Medicine at clinical trial investigation project; for work out these, which will base at the observation during the vaccination procedure.

Bibliography

1. Yan Wang. “The Distance from Science to Common Life”. *EC Cardiology* 3.6 (2017): 208.
2. Yan Wang. “Epidemiology, prevention and treatment on Hand. Foot. Mouth Disease”. *National Medical Journal of China* 89.24 (2009): 1724-1725.
3. Wikipedia.com, Vaccination.
4. Wikipedia.com, Edward Jenner 1749-1823.
5. Britannica.com/biography, Louis-Pasteur vaccine development.
6. Yan Wang. “The Lab Identified Methods and clinical Application for Current Corona Virus Issue”. *EC Pulmonary and Respiratory Medicine* 9.5 (2020): 78-80.

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