conferenceseries.com

International Congress on PEDIATRICS AND NEONATOLOGY

December 04-05, 2023 | Rome, Italy

BCG is not just a Vaccine

Najla Algariri
King Abdullah Bin Abdulaziz University Hospital, Saudi Arabia

BCG is an attenuated version of the virulent Mycobacterium bovis. It is one of the oldest vaccines in the world, developed for tuberculosis (TB) protection and for early stage bladder cancer therapy. The co-evolution of humans and Mycobacterium is not recent but extends back some 90,000 years.

BCG vaccination should only be considered for children who have a negative TB test and who are continually exposed, and cannot be separated from adults who Are untreated or ineffectively treated for TB disease, and the child cannot be given long-term primary preventive treatment for TB infection; or Have isoniazid- and rifampin-resistant strains of TB disease. Although BCG vaccine is the most widely administered of all vaccines and has the highest coverage of any vaccine in the WHO Expanded Programme on Immunization, it appears to have had little epidemiologic impact on TB. Both randomized placebo- controlled clinical trials and retrospective case-control and cohort studies have demonstrated a wide variation in vaccine efficacy, ranging from 80% to zero. The largest and most recent prospective randomized trial, the Chingleput study in southern India, failed to demonstrate any protection overall. These studies have indicated, however, that BCG confers protection against serious forms of childhood TB (e.g., disseminated and meningeal TB) that are associated with high mortality rates. More recent studies have demonstrated that BCG vaccine also protects against the development of leprosy. Despite its shortcomings and because of its beneficial effect in children and against leprosy, BCG vaccine likely will remain a component of childhood vaccination strategies in low-income countries. However, because of questions about the vaccine's efficacy and because it induces dermal hypersensitivity to purified protein derivative (PPD) tuberculin in most recipients, BCG has never been recommended for programmatic use in the United States.

Interest in the development of new vaccines for tuberculosis (TB) has increased in recent years as the disease continues to be a major, global public health problem.

In The past 15 years has seen a surge of clinical trials that re-introduce BCG for a diversity of autoimmune, allergic, and induced adaptive immune responses to childhood infections.

BCG vaccination confers a survival advantage in low birth weight infants against mortality from a diversity of infections unrelated to tuberculosis

Many autoimmune NOD (non-obese diabetic) murine studies have shown a beneficial effect of BCG or CFA (Complete Freund’s Adjuvant) in preventing the onset of autoimmune diabetes and even reversing full blown established disease in mice.

Biography

Najla Algariri studied human medicine in Aden University in Yemen then she certified Saudi board in pediatrics, she is currently general pediatric consultant working in Riyadh/ Saudi Arabia She is CPHQ certified and has interest in quality and research.