

## EPONYMS LINKED TO VACCINES AND ITS REACTIONS

Khalid Al Aboud<sup>1</sup>, Daifullah Al Aboud<sup>2</sup>

Source of Support:

Nil

Competing Interests:

None

<sup>1</sup>Department of Public Health, King Faisal Hospital, Makkah, Saudi Arabia<sup>2</sup>Department of Dermatology, Mount Sinai School of Medicine, New York, USA

Corresponding author: Dr. Khalid Al Aboud

[amoa65@hotmail.com](mailto:amoa65@hotmail.com)

Our Dermatol Online. 2013; 4(4): 559-563

Date of submission: 16.04.2013 / acceptance: 29.05.2013

## Cite this article:

Khalid Al Aboud, Daifullah Al Aboud: Eponyms linked to vaccines and its reactions. Our Dermatol Online. 2013; 4(4): 559-563.

In this manuscript, We shall look to some eponyms in the medical literature from the vaccination window.

The impact of vaccination on the health of the world's peoples is hard to exaggerate. With the exception of safe water, no other modality, not even antibiotics, has had such a major effect on mortality reduction and population growth [1].

Vaccination has controlled the following 14 major diseases, at least in parts of the world: smallpox, diphtheria, tetanus, yellow fever, pertussis, Haemophilus influenzae type b disease, poliomyelitis, measles, mumps, rubella, typhoid, rabies, rotavirus, and hepatitis B [1].

The most famous vaccine is BCG, which is a live, attenuated organism used to provide protective immunity against tuberculosis. It is a widely accepted immunotherapeutic

modality of superficial and in situ transitional cell carcinoma of urinary bladder. BCG immunotherapy has also been described for the treatment of malignant melanoma [2]. It has been used also to treat viral warts.

A large number of local and generalized reactions have been reported after BCG vaccination. Examples are erythema multiforme, extensive ulceration and lupus vulgaris [2].

In Table I [3-26], We listed selected eponyms linked to vaccines and the reported reactions associated with its use. Nevertheless, We want to stress that this table is only to highlight on some eponyms encountered in the literature of vaccinations and not inclusive for the all reported reactions associated with vaccinations.



Eponyms linked to vaccines and its reactions	Remarks
BCG [3-5]	<p>Bacillus Calmette–Guérin (Historically Vaccin Bilié de Calmette et Guérin commonly referred as Bacille de Calmette et Guérin or BCG) is a vaccine against tuberculosis that is prepared from a strain of the attenuated live bovine tuberculosis bacillus, Mycobacterium bovis. It is named for, Léon Charles Albert Calmette (1863-1933), (Fig. 1), who was a French physician, bacteriologist and immunologist and Jean-Marie Camille Guérin (1872–1961), (Fig. 2), who was a French veterinarian, bacteriologist and immunologist.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <p>Figure 1. Léon Charles Albert Calmette (1863-1933).</p> <p>Figure 2. Jean-Marie Camille Guérin (1872-1961).</p> </div>

Table I. Eponyms linked to vaccines and its reactions

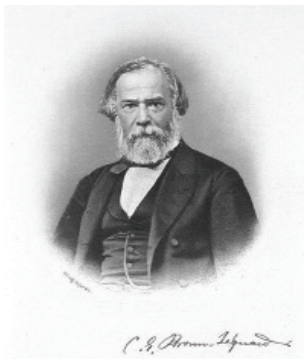


Figure 3. Charles-Édouard Brown-Séquard (1817-1896).



Figure 4. Charlotte Dravet.



Figure 5. Jean Baptiste Octave Landry de Thézillat (1826-1865).

Eponyms linked to vaccines and its reactions	Remarks
Brown-Séquard syndrome [6,7]	Also known as Brown-Séquard's hemiplegia and Brown-Séquard's paralysis, is a loss of sensation and motor function that is caused by the lateral hemisection of the spinal cord. It was first described in 1850 by the famed British / Mauritian neurologist Charles-Édouard Brown-Séquard (1817–1896), (Fig. 3), who studied the anatomy and physiology of the spinal cord. He described this injury after observing spinal cord trauma happen to farmers while cutting sugar cane in Mauritius. Transverse myelitis with Brown-Séquard syndrome following a prophylactic influenza vaccination has been reported.
Dravet syndrome [8]	Also known as Severe Myoclonic Epilepsy of Infancy (SMEI), is a rare and catastrophic form of intractable epilepsy that begins in infancy. Vaccination might trigger earlier onset of Dravet syndrome in children who, because of an SCN1A mutation, are destined to develop the disease. Dravet syndrome has been found recently as an important underlying condition in cases of alleged vaccine encephalopathy after pertussis vaccination, where vaccination seemed to have precipitated the occurrence of the disease without modifying the long-term course. Dravet syndrome was first described by French physician, Dr. Charlotte Dravet, (Fig. 4), in 1978.
Evans syndrome [9]	Evans syndrome is an autoimmune disease in which an individual's antibodies attack their own red blood cells and platelets. The syndrome was first described in 1951 by R. S. Evans and colleagues. It has been reported to occur after vaccination.
Gianotti-Crosti syndrome [10]	Also known as papular acrodermatitis of childhood. Documented to follow several vaccines. It is named for Ferdinando Gianotti (1920-1984), who was an Italian physician and Agostino Crosti (1896-1988), who was an Italian dermatologist.
Guillain-Barré syndrome [11]	Guillain-Barré syndrome (GBS) sometimes Landry's paralysis or Guillain-Barré-Strohl syndrome, is an acute polyneuropathy, a disorder affecting the peripheral nervous system. The disease is usually triggered by an infection but reported to follow vaccination. The French physician Jean Landry (1826-1865), (Fig. 5), first described the disorder in 1859. In 1916, Georges Guillain (1876-1961), (Fig. 6), who was a French neurologist and Jean Alexandre Barré (1880-1967), (Fig. 7), who was a French neurologist, and André Strohl (1887-1977), (Fig. 8), who was a French physiologist diagnosed two soldiers with the illness and described the key diagnostic abnormality of increased spinal-fluid protein production, but normal cell count. Canadian-born neurologist, C. Miller Fisher, described the variant that bears his name in 1956. Charles Miller Fisher, usually known as C. Miller Fisher (1913- 2012), (Fig. 9), was a pioneering neurologist.
Henoch-Schönlein purpura [12,13]	Also known as, Schönlein-Henoch purpura. It is named for Eduard Heinrich Henoch (1820–1910), (Fig.10), a German pediatrician, and his teacher Johann Lukas Schönlein (1793–1864), (Fig. 11), who described it in the 1860s. This type of vasculitis has been reported to follow vaccination.

Table I. Eponyms linked to vaccines and its reactions (continued)



Figure 6. Georges Charles Guillain (1876-1961).



Figure 7. Jean Alexandre Barré (1880-1967).



Figure 8. André Strohl (1887-1977).



Figure 9. C. Miller Fisher (1913-2012).

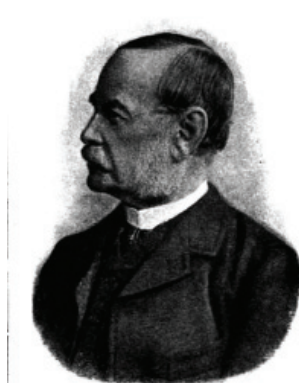


Figure 10. Eduard Heinrich Hensch (1820-1910).



Figure 11. Johann Lukas Schönlein (1793-1864).

Eponyms linked to vaccines and its reactions	Remarks
Hughes syndrome [14]	It is another name for antiphospholipid syndrome, a pro-thrombotic condition was described in 1983 which was characterised by the presence of circulating antiphospholipid antibodies, as well as peripheral thrombosis, a tendency to internal organ involvement, repeated miscarriage, and, occasionally, thrombocytopenia. Named after, Graham Robert Vivian Hughes, (Fig. 12), an English rheumatologist. It is reported to follow vaccination.
Jenner's cowpox vaccine [15,16]	Edward Jenner (1749-1823), (Fig. 13), an English doctor, was the first to study and report on the effects of the use of cowpox vaccination to prevent smallpox.
Lambert-Eaton myasthenic syndrome ( LEMS) [17,18]	Also known as, Lambert-Eaton-Rooke syndrome. It is a rare autoimmune disorder that is characterised by muscle weakness of the limbs. Around 60% of those with LEMS have an underlying malignancy. Lambert, Eaton and Rooke at the Mayo Clinic were the first physicians to substantially describe the clinical and electrophysiological findings of the disease in 1956. Lealtes (Lee) McKendree Eaton (1905-1958), an american neurologist, Edward Howard Lambert (1915-2003), (Fig. 14), an american neurophysiologist, and Edward Douglas Rooke (1912-2001), a canadian physician.
Marjolin's ulcer [19]	The term „Marjolin's ulcer” has been generally accepted to refer to a long-term malignant complication of the scars resulting from burns. However, vaccination, snake bites, osteomyelitis, pilonidal abscesses, pressure sores, and venous stasis may also induce this tumor. It is named after Jean-Nicolas Marjolin (1780 –1850), (Fig. 15), who was a French surgeon and pathologist. It was pointed out that Marjolin did not describe the condition he is eponymously credited with, but that the false ascription to him arose over time.

Table I. Eponyms linked to vaccines and its reactions (continued)





Figure 12. Graham Robert Vivian Hughes.



Figure 13. Edward Jenner (1749-1823). A courtesy of National library of Medicine.



Figure 14. Edward Howard Lambert (1915-2003).



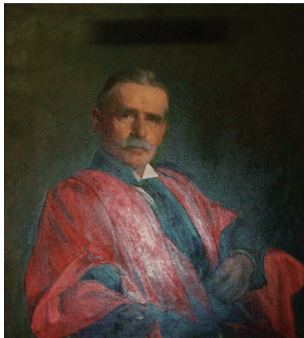
Figure 15. Jean-Nicolas Marjolin (1780-1850).



Figure 16. Yehuda Shoenfeld, M.D, FRCP(Hon).

Eponyms linked to vaccines and its reactions	Remarks
Nicolau syndrome [20]	Nicolau syndrome-also known as Embolia Cutis Medicamentosa-is a rare complication of intramuscular and subcutaneous drug injections manifesting as necrosis of skin and the underlying tissue s. It may follow vaccination. It was first described by Freudenthal in 1924 and Nicolau in 1925 in patients treated for syphilis withbismuth salts.
Shoenfeld syndrome [21,22]	In the 1990s the term „functional somatic syndromes” was applied to several syndromes, including Sick building syndrome (SBS) (a term coined for a set of clinically recognizable symptoms and ailments without a clear cause reported by occupants of a building), multiple chemical sensitivity, repetition stress injury, the side effects of silicone breast implants, the Gulf War syndrome (GWS), chronic fatigue syndrome, the irritable bowel syndrome, and fibromyalgia. Recently, Shoenfeld and Agmon-Levin suggested that four conditions-siliconosis, macrophagic myofascitis, the GWS, and post-vaccination phenomena-which share clinical and pathogenic resemblances, may be included under a common syndrome entitled the „autoimmune (auto-inflammatory) syndrome induced by adjuvants”(ASIA), also known as Shoenfeld’s syndrome. ASIA may also be precipitated by silicon in silicone-filled breast implants (Silicone implant incompatibility syndrome; SIIS). Shoenfeld’s syndrome is named for Yehuda Shoenfeld, M.D., FRCP (Hon). (Fig. 16), the head of Zbludowicz Center for Autoimmune Diseases, Chaim Sheba Medical Center at Tel-Hashomer, who and his team elaborated on the above medical conditions.
Stevens-Johnson syndrome [23]	It is a hypersensitivity reaction that affects the skin and the mucous membranes. The main known cause is certain medications, followed by infections and, rarely, cancers. It may also occur after vaccination. It is named for Albert Mason Stevens (1884-1945) and Frank Chambliss Johnson (1894-1934), american pediatricians who jointly published a description of the disorder in the American Journal of Diseases of Children in 1922.

Table I. Eponyms linked to vaccines and its reactions (continued)

Eponyms linked to vaccines and its reactions	Remarks
Still's disease [24-27]	<p>Adult-onset Still's disease may be precipitated or relapsed after vaccination for hepatitis. In one study no long-term adverse events were reported after influenza vaccination in juvenile idiopathic arthritis (JIA) and control group. Thirty-five percent of children with JIA experienced flare of the disease after vaccination. Protective antibodies against at least 2 vaccine viruses 6 months after vaccination were detected in all patients. Adult-onset Still's disease is a systemic inflammatory disease. The classic presentation is the triad of persistent high spiking fever, joint pain and a distinctive salmon-colored rash. Still's disease is named after English physician Sir George Frederic Still (1861-1941), (Fig. 17).</p>  <p>Figure 17. The original legend read as „Portrait of George Frederick Still (from the painting by Gerald Kelly, RA), reproduced with permission from Corporate and Legal Services, Kings College Hospital NHS Trust”, from reference number 27.</p>

**Table I. Eponyms linked to vaccines and its reactions (continued)**

## REFERENCES

- Plotkin SL, Plotkin SA: A short history of vaccination. In: Plotkin SA, Orenstein WA, Offit PA. Plotkin: Vaccines, 6th ed. Copyright © 2012 Saunders, An Imprint of Elsevier. Page, 1-13.
- Sharma VK, Sethy PK, Dogra PN, Singh U, Das P: Primary tuberculosis of glans penis after intravesical Bacillus Calmette Guérin immunotherapy. Indian J Dermatol Venereol Leprol. 2011;77:47-50.
- Tan SY, Kwok E: Albert Calmette (1863-1933): originator of the BCG vaccine. Singapore Med J. 2012;53:433-4.
- Togunova AI: [Half a century since the development and practical application of live BCG vaccine (Albert Calmette), (Camille Guérin)]. Probl Tuberk. 1971;49:1-6.
- Sakula A: BCG: who were Calmette and Guérin? Thorax. 1983;38:806-1.
- Iñiguez C, Mauri JA, Larrodé P, López del Val J, Jericó I, Morales F: [Acute transverse myelitis secondary to hepatitis B vaccination]. Rev Neurol. 2000;31:430-2.
- Larner AJ, Farmer SF: Myelopathy following influenza vaccination in inflammatory CNS disorder treated with chronic immunosuppression. Eur J Neurol. 2000;7:731-3.
- McIntosh AM, McMahon J, Dibbens LM, Iona X, Mulley JC, Scheffer IE, et al: Effects of vaccination on onset and outcome of Dravet syndrome: a retrospective study. Lancet Neurol. 2010;9:592-8.
- Shlamovitz GZ, Johar S: A case of evans' syndrome following influenza vaccine. J Emerg Med. 2013;44:e149-51.
- Sigmon JR, Venkatesh S, Leshner JL: Gianotti-Crosti syndrome associated with hepatitis A and influenza vaccination. J Drugs Dermatol. 2012;11:260-1.
- De Wals P, Deceuninck G, Toth E, Boulianne N, Brunet D, Boucher RM, et al: Risk of Guillain-Barré syndrome following H1N1 influenza vaccination in Quebec. JAMA. 2012;308:175-81.
- Jariwala S, Vernon N, Shliozberg J: Henoch-Schönlein purpura after hepatitis A vaccination. Ann Allergy Asthma Immunol. 2011;107:180-1.
- Pimentel MI, Vasconcellos Ede C, Cerbino-Neto J: Henoch-Schönlein purpura following influenza A H1N1 vaccination. Rev Soc Bras Med Trop. 2011;44:531.
- Blank M, Israeli E, Shoenfeld Y: When APS (Hughes syndrome) met the autoimmune/inflammatory syndrome induced by adjuvants (ASIA). Lupus. 2012;21:711-4.
- Huygelen C: [Jenner's cowpox vaccine in light of current vaccinology]. Verh K Acad Geneesk Belg. 1996;58:479-536.
- Smith KA: Edward Jenner and the small pox vaccine. Front Immunol. 2011;2:21.
- Ansakorpi H, Rusanen H, Rytty S, Färkkilä M: Lambert: Eaton myasthenic syndrome following H1N1-influenza vaccination: a case report. Acta Neurol Scand. 2012;126:25-8.
- Daube JR, Edward H: Lambert, MD, PhD: 1915-2003. Ann Neurol. 2003;54:690-1.
- Steffen C: Marjolin's ulcer. Report of two cases and evidence that Marjolin did not describe cancer arising in scars of burns. Am J Dermatopathol. 1984;6:187-93.
- Bégin P, Anne DR: Nicolau syndrome may be caused by intravascular vaccine injection. Vaccine. 2012;30:2035-6.
- Jara LJ, Medina G, Gómez-Bañuelos E, Saavedra MA, Vera-Lastra O: Still's disease, lupus-like syndrome, and silicone breast implants. A case of 'ASIA' (Shoenfeld's syndrome). Lupus. 2012;21:140-5.
- Israeli E, Pardo A: The sick building syndrome as a part of the autoimmune (auto-inflammatory) syndrome induced by adjuvants. Mod Rheumatol. 2011;21:235-9.
- Christou EM, Wargon O: Stevens-Johnson syndrome after varicella vaccination. Med J. 2012;196:240-1.
- Grasland A, Le Maître F, Pouchot J, Hazera P, Bazin C, Vinceneux P: [Adult-onset Still's disease after hepatitis A and B vaccination?]. Rev Med Interne. 1998;19:134-6.
- Shimizu M, Ueno K, Yachie A: Relapse of systemic juvenile idiopathic arthritis after influenza vaccination in a patient receiving tocilizumab. Clin Vaccine Immunol. 2012;19:1700-2.
- Toplak N, Subelj V, Kveder T, Cucnik S, Prosenc K, Trampus-Bakija A, et al: Safety and efficacy of influenza vaccination in a prospective longitudinal study of 31 children with juvenile idiopathic arthritis. Clin Exp Rheumatol. 2012;30:436-44.
- Farrow SJ: Sir George Frederick Still (1868-1941). Rheumatology (Oxford). 2006;45:777-8.