Eponymous Signs in STIs

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Abstract

Eponymous medical signs are those that are named after a person or persons, usually the physicians who first described them, as a tribute to the pioneers in the field who have significantly contributed toward the present understanding of the subject. They also help in providing an easy milieu for remembering the particulars of disease with their diagnostic significance including signs, tests, criteria, laws, or reflexes. Besides paying tributes to stalwarts in the field, who dedicated their lives for this cause, they also facilitate our current understanding of the great masquerade.

Key words: Eponyms, laws, sexually transmitted infections, signs, syphilis

A: Addisonian Pigmentation

Thomas Addison (April 1793–June 29, 1860) was an English physician, chef, and scientist, and is best remembered for two conditions that bear his name—progressive adrenal disease with deficiency of adrenal cortical hormones; and pernicious anemia.[1] Diffuse Addisonian hyperpigmentation in a few male patients with acquired immunodeficiency syndrome-related complex is described. The etiology of pigmentation in these patients remains obscure but is most probably related to the H. I. V. infection.

A: Argyll Robertson Pupil

Dr. Douglas Moray Cooper Lamb Argyll Robertson (1837–1909) FRSE, FRCSEd LLD was a Scottish ophthalmologist and surgeon. He was president of the Royal College of Surgeons of Edinburgh. Argyll Robertson pupil is also known as reflex iridoplegia, and colloquially as "prostitute's pupil." This is highly associated with neurosyphilis, and might also be seen with diabetic neuropathy.[2] In this accommodation, the reflex is preserved, but the pupillary light reflex is compromised. It has been attributed to a dorsal midbrain lesion in neurosyphilis that interrupts the pupillary light reflex pathway but spares the more ventral pupillary near the reflex pathway.

A: Amsel's Criteria

Richard Amsel M. D., M. P. H. (December 4, 1947–November 13, 1985) was an American illustrator from the Departments of Epidemiology and Pathobiology, Community Medicine, Internal Medicine, and Obstetrics and Gynecology, University of Washington, Seattle. He published Amsels's criteria for Bacterial vaginosis in 1983 which has moderate sensitivity (75%), but high specificity (95%) because it makes use of clinical signs which cannot be standardized or quantified.[3]

B: Buschke–Lowenstein Tumor

Abraham Buschke (September 27, 1868–February 25, 1943) was a Jewish German dermatologist who was a native of Nakel in the Province of Posen. Greifswald. Later, he worked at dermatological clinics in Breslau under Albert Neisser and in Berlin. Ludwig Lowenstein (1895–1959) was a German dermatopathologist who worked under Bushke in Berlin. (Buschke–Lowenstein tumor), also known as giant condyloma acuminatum, is a very rare, sexually transmitted disease that affects the anogenital region. BLT is a slow-growing cauliflower-like tumor, but unlike simple condyloma, it is locally aggressive and destructive.[4] It was originally described in 1896 by Buschke and in 1925 by Loewenstein and later on, was named by Loewenstein "carcinoma-like condylomata acuminata" of the penis.

B: Bushke–Olendroff Sign

Jewish German dermatologists Abraham Buschke (1868–1943) and Helen Ollendorff Curth (1899–1982) German-American dermatologists observed the extreme

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sensitivity of secondary syphilitic lesions to pressure with a dull probe (e.g., papular lesions of syphilis) due to cutaneous vasculitis. It is also known as the Ollendorff probe sign.[5]

C: Clutton's Joints

Henry Hugh Clutton (July 12, 1850–November 9, 1909) was an English surgeon in the Lancet, described in 1886, as having chronic, painless, symmetrical, and insidious joint effusion of knees in late congenital syphilis.[6] He was commemorated by the Clutton Medal and Prize, awarded for excellence in Clinical Surgery at St Thomas's Hospital, King's College School of Medicine and Dentistry.

C: Colles Law

Abraham Colles (1773–1843) was an Irish surgeon and anatomist who excelled as a clinician, a teacher, and an anatomist. Eponymously remembered by a fracture, a fascia, a law, space, and a ligament (Colles fracture, Colles fascia, Colles law, and Colles ligament). Colles believed his most important work was practical observations on venereal disease and the use of mercury**.** He described the relationship between the syphilitic mother and child now known as Colle's law or Baumis Law (1883).[7] He stated, "A child born to a mother who has no signs of venereal symptoms, and presents with this disease at the age of a few weeks, will infect the healthiest nursemaid, but not its mother."[8]

D: Dubois' Sign

Charles du Bois (1874–1947) was the Swiss Director of the Dermatological Syphiligraphic Clinic of the Medical Faculty in Geneva. This sign is sometimes wrongly attributed to Paul Dubois (1795–1871), a French gynecologist. The term "du Bois sign" characterizes the condition of a shortened fifth finger as a symptom of congenital syphilis, Down syndrome, dyscrasias, and encephalic malformation. In addition, a further eponymic fifth finger sign is closely associated with the du Bois sign. If at all, the du Bois sign may be of limited use for diagnosing congenital syphilis, but only in combination with other symptoms or by way of supplementary evidence.[9] Some authors suggested that this term be replaced with brachymesophalangia-5.

D: Diday-Kassowitz Law (1876)

Charles-Paul Diday (1812-January 8, 1894) was a French physician and chief surgeon and Max Kassowitz (1842–1913) was a pediatrician and university teacher in Austria.

Paul was the founder of the *Gazette médicale de Lyon*, and for 34 years was general secretary of the *Société de Médecine* in Lyon. He specialized in research on venereal disease, particularly congenital syphilis. The law says, if a woman with untreated syphilis has a series of pregnancies, the likelihood of infection of the fetus in later pregnancies becomes less. Thus, in successive pregnancies, she may have a miscarriage at sequentially increasing in time of gestation or death even after birth to a syphilitic mother.[8]

D: De Graefes Relapsing Central Retinitis

Friedrich Wilhelm Ernst Albrecht von Gräfe,[1] often Anglicized as Graefe[2] (May 22, 1828–July 20, 1870), was a Prussian pioneer of German ophthalmology.

He first described it in 1866, and named it "relapsing central luetic retinitis." It is circumscribed serous retinal detachment that is usually confined to the posterior pole and caused by leakage of fluid through the retinal pigment epithelium.[5] It is now known as central serous chorioretinopathy with a largely unknown etiology and can be seen in neonates born to a syphilitic mother.

F: Furuncle of Barlow

Sir Thomas Barlow (1845–1945), born at Edgworth in Lancashire is a British scientist and was one of Jenner's assistants. He described that indolent purplish cutaneous swelling which contains scanty secretion of ill-formed pus can be seen toward the end of the 1st year of life in the neonate of a syphilitic mother.[8]

F: Fournier-Finger Criteria

Jean Alfred Fournier (1832–1914) was the first French syphilologist, the first professor of cutaneous and syphilitic diseases at the Paris Faculty of Medicine; and a most prominent European dermatovenereologist and Finger (1900) described four-point criteria for three generations of syphilitic family:

- Acquired syphilis must be demonstrated in the grandmother and preferably also in the grandfather
- Prenatal syphilis must be demonstrated in the mother. Acquired syphilis must be excluded in her case and the father must be proven healthy
- There must be incontrovertible evidence of prenatal syphilis in the third generation
- Manifestations must appear soon after birth in the second and third generations.[8]

H: Hay's Criteria and Hay's/Ison Classification

Professor Cathy Ison was Director of the Sexually Transmitted Bacterial Reference Unit within Public Health England, in 2013 devoted her working life to the science and practice of sexually transmitted infection.[10] A simpler version was described by Ison and Hay in 2002, to diagnose Bacterial Vaginosis, in which vaginal flora is divided into the following three different categories: normal, intermediate, and BV depending on the relative amount of Lactobacillus morphotypes as compared to the Gardnerella morphotypes.

H: Henneber's Sign

Camille Hennebert (1867–1954) was a Belgian otolaryngologist who originally noted the sign in cases of congenital syphilis. He described that nystagmus caused by pressure applied to a sealed external auditory canal can be seen in syphilis, and can also be positive in Meniere's disease.[8]

H: Hertoghe's Sign (Queen Anne's Sign)

Belgian physician, Eugene Hertoghe defined it as the loss of lateral one-third of eyebrows (superciliary madarosis). It is seen in leprosy, myxedema, follicular mucinosis, atopic dermatitis, trichotillomania, ectodermal dysplasia, discoid lupus erythematosus, alopecia areata, syphilis, ulerythema ophryogenes, systemic sclerosis, HIV infection, and hypothyroidism.[11]

H: Higoumenaki's Sign

Georgios "George" Higoumenakis (1895–December - 1983) was a Greek dermatologist born in Kastelli. He was the first to describe Higoumenakis' sign in 1927 in the Greek periodical proceedings of the Medical Society of Athens. It states that unilateral enlargement of sternoclavicular

articulation of the clavicle can be seen in late congenital syphilis.[8]

H: Hunterian Chancre

John Hunter FRS (February 13, 1728–October 16, 1793) was a British surgeon, one of the most distinguished scientists and surgeons, who believed in the Unity or Monist Theory, that is, gonorrhea and syphilis were the same diseases. To prove his observation, he conducted a famous experiment in 1767, in which he inoculated himself with matter from a patient who suffered from gonorrhea. Ten days later, he developed a chancre, followed by secondary syphilis, thus proving his point. It is now believed that the donor had both syphilis and gonorrhea. Since then primary chancre is known as Hunterian chancre or hard chancre. He was later proved wrong by Philippe Ricord in 1838.[5]

H: Hutchinson's Teeth (Screwdriver Teeth)

Sir Jonathan Hutchinson (July 23, 1828–June 23, 1913) was an English surgeon, ophthalmologist, dermatologist, venereologist, and pathologist. He describes that abnormal permanent upper central incisors that are peg-shaped and notched, usually with obvious thinning and discoloration of enamel in the area of notching; they are widely spaced and shorter than lateral incisors; the width of the biting surface is less than that of the gingival margin.[8] It is one of the commonly observed stigmata.

H: Hutchinson's Triad

Sir Jonathan Hutchinson (July 23, 1828–June 23, 1913), an English surgeon and syphilis specialist, who worked at London Hospital in the late 1800s, describes the "Hutchinson triad," involving the teeth, ears, and eyes namely: Hutchison's teeth, interstitial keratitis, and sensorineural deafness in congenital syphilis.[8]

J: Jarisch–Herxheimer Reaction

Jarisch–Herxheimer reaction is described after Adolf Jarisch (1850–1902) an Austrian dermatologist and Herxheimer (1861–1942) a German dermatologist. Jarisch in 1895 and Herxheimer in 1902 observed that after the use of mercury for syphilis. This reaction is seen more frequently with the use of penicillins rather than other antibiotics. Early syphilis has the maximum chance of this reaction after treatment, followed by infants with congenital syphilis, pregnant patients with syphilis, and patients with neurosyphilis, respectively. Furthermore, the sudden excessive release of lipoproteins with inflammatory activities from dead or dying treponemes on adminitration of Penicillin results in a "therapeutic shock," which is associated with pyrexia, headache, malaise, myalgia, and leukocytosis with lymphopenia within 12 h of initiation of treatment and terminates within 24 h.[12]

J: Justus's Test For Syphilis

Named after Justus (1907), this test was used for the diagnosis of syphilis before the advent of the Wasserman test. In this test, change in hemoglobin level is determined before and 24 h after a single mercurial inunction. Initially, there is a fall in hemoglobin by about 10%–20%, followed by a rise to a level above that which existed when the test was applied. In diseases other than syphilis, this sudden drop in hemoglobin is not seen.[5]

K: Kaposi Sarcoma

Moritz Kaposi (1837–1902) was a Hungarian physician and dermatologist, who is famously known for the angiosarcoma that bears his name, Kaposi's sarcoma (KS), which he described in 1872 in a German article titled "Idiopathic Multiple Pigmented Sarcoma of the Skin.[13] KS is caused by a combination of immune suppression (such as due to HIV/AIDS or organ donation) and infection by Human herpesvirus 8 (HHV8– also called KS-associated herpesvirus).

N: Nelson-Mayer Test

It is also known as Nelson's syphilis reaction or Nelson's treponemal immobilization test is named after Robert Armstrong Nelson and Manfred Martin Mayer (June 15, 1916, Frankfurt am Main-September 18, 1984, Baltimore) was a German-born, American microbiologist and immunologist.[14] It is highly sensitive, the specific reaction for serodiagnosis of syphilis. It demonstrates immobilizing antibodies in the patient's serum.

N: Nugent Scoring System

Nugent scoring system, developed by Robert *P* Nugent in 1991, is based on Gram staining and observing the number of lactobacilli and other morphotypes (different shapes of Gardnerella vaginalis, prevotella species, and mobiluncus) which are scored between 0 and 10, where scores 7–10 show *BV*.[3,15] Its high sensitivity has led to its recognition as the gold standard of *BV* (Nugent, Krohn, and Hillier, 1991).

N: Nissl Arteritis

It was named after Franz Nissl, a German neuropathologist who invented the Nissl staining method. The pathological characteristic of neurosyphilis is the invasive thickening of meninges and blood vessels. Syphilitic cerebral arteritis can be divided into two subcategories, including Huebner arteritis and Nissl arteritis, both of which can lead to angiostenosis and angiemphraxis (obstruction of a vessel).[16]

P: Parrot's Pseudoparalysis

It is also known as Parrot I syndrome or Bednar-Parrot syndrome was first described by Parrot, Jules Marie, a French physician, in 1871, this condition affected relatively younger children, within 8 months of birth in early congenital syphilis. Osteochondritis was the most common and the earliest lesion mainly affecting the upper limbs and knees. Pain in the extremities secondary to the involvement of bone resulted in a lack of movement on the affected side.[5]

P: Profet's Law

It is named after Profeta G, a British physician born on July 23, 1828, UK. He described that, at birth, an infected infant with congenital syphilis may appear healthy and may not develop signs till it is some weeks old, but in other cases, signs are present at birth in 1865.[8]

R: Ricord's Chancre

Philippe Ricord (1800–1889) was a French physician who described a syphilitic chancre with a thin parchment-like base. He conclusively proved that syphilis and gonorrhea were separate diseases. He also observed that the bubo of syphilis was multiple, consisting of a chain of movable glands which are now called Glandulte Pleiades of Ricord.[5] He is credited with the categorization of syphilis into primary, secondary, and tertiary stages, a classification which has stood the test of time and is still in vogue.

S: Spiegel Criteria

Named after Carol A. Spiegel (1947–2002) is an American enthusiast and Volunteer Mediator for Washington County, Department of Court Services. According to Spiegel criteria, BV was present if Lactobacillus morphotypes were fewer than 5 per oil immersion field and if there were 5 or more Gardnerella vaginalis morphotypes together with 5 or more other morphotypes (Gram-positive cocci, small Gram-negative rods, curved gram variable rods, or fusiform) per oil immersion field.[15]

T: Tzanck Test

It is named after the Russian dermatologist Arnault Tzanck (1886–1954). It is the examination of fluid from a bulla (a blister) in search of Tzanck cells (acantholytic cells) characteristic of herpes zoster/urogenital/labialis, varicella (chickenpox), herpes simplex, and pemphigus vulgaris.[17]

T: Tyson's Glands

Preputial glands were first noted by Edward Tyson and in 1694 fully described by William Cowper who named them Tyson's glands after Tyson.[18] They are described as modified sebaceous glands located around the corona and inner surface of the prepuce of the human penis which produces smegma. Very rarely, gonococcal tysonitis with or without urethritis can be seen as a complication of gonorrhea.

T: Thayer–Martin Medium

It is named after Thayer JD, Frank PF, Martin JE Jr. (1965). Thayer–Martin selective medium for the cultivation of *Neisseria meningitidis* from the nasopharynx.[19]

A single culture on antibiotic-containing selective medium, such as modified Thayer–Martin agar, has a sensitivity of 95% or more for urethral specimens from men with symptomatic urethritis and 80%–90% for endocervical infection in women.[20]

W: Wimbergers Sign

It is also known as Wimberger's corner sign named after Hans Wimberger (1887–1954), an Austrian pediatrician who had expertise in reading pediatric radiographs. It is a specific pathognomonic radiological sign of congenital syphilis in which there is localized bony destruction of the medial portion of the proximal tibia metaphysis. Clinically, it manifests as mild irritability or pseudoparalysis. It should not be confused with Wimberger's ring sign seen in scurvy.[5]

W: Wassermann Test or Wassermann Reaction

It is named after the German bacteriologist and hygienist, August Paul von Wassermann (1866–1925). In 1890, he began work under Robert Koch at the Institute for Infectious Diseases in Berlin. It is the first diagnostic test of syphilis using blood serum or cerebrospinal fluid. It is a modification of the complement-fixation reaction.[5,21]

W: Wright's Stain

It is named for James Homer Wright, who devised the stain, a modification of the Romanowsky stain, in 1902. Is a hematologic stain that facilitates the differentiation of blood cell types. It is classically a mixture of eosin (red) and methylene blue dyes. It is used primarily to stain peripheral blood smears, urine samples, and bone marrow aspirates, which are examined under a light microscope. Direct smears of lesions and observation after staining with Wrights stain of Giemsa can frequently identify multinucleated cells characteristic of herpetic infection.[22]

V: Virchow's Sign

"The father of modern pathology" Rudolf Ludwig Carl Virchow (1821–1902) was a German physician, anthropologist, pathologist, prehistorian, biologist, writer, editor, and politician. He is also known as the founder of social medicine, and his colleagues, the "Pope of medicine." He observed that the tongue often showed a smooth base in congenital syphilis. This is called Virchow's sign.[23]

V: Vincent's Angina

It is also called Vincent angina/acute necrotizing ulcerative gingivitis/trench mouth, is an acute bacterial infection of the gingiva after the French physician Henri Vincent (1862–1950).

Certain germs (including fusiform bacteria and spirochetes) have been thought to be involved, but the full story behind this long-known disease is still not clear. This condition is can be rarely seen in secondary syphilis patients.[24]

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