




Eponymous Signs of Tuberculosis (1768–1908)

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ABSTRACT

This historical review examines the development and significance of medical eponyms associated with tuberculosis from the late 18th to early 20th centuries, focusing on their role in diagnosing the disease. Spanning the period from 1768 to 1908, the review covers 16 eponyms, including Burghart, De la Camp, D’Espine, Erni, Jackson, Jürgensen, Roussel, Smith, and Whytt signs, along with key observations by Frédéricq-Thompson, Gröber, Murat, Roque, Rothschild, Skeer, and Stocker. These eponyms were crucial in guiding tuberculosis diagnosis before advanced imaging techniques became available, providing valuable insights into the disease’s clinical manifestations. Notable examples include Jackson sign, which refers to a prolonged expiratory sound in pulmonary tuberculosis; Smith sign, indicating enlarged bronchial glands detected by auscultation; D’Espine sign, highlighting specific auscultatory sounds between the seventh cervical and first thoracic vertebrae; and Erni sign, describing a cough triggered by percussion at the lung apices. Specifically, Smith and Roque signs, which represent advanced stages of pulmonary tuberculosis with compression from bronchial and mediastinal lymphadenopathy, affecting the bronchial airway and sympathetic nerve pathways, remain relevant in contemporary medical practice. Although some of these signs are no longer widely used, they highlight the continued importance of physical examination in understanding tuberculosis. The review also provides brief biographical details of each discoverer, alongside original descriptions of the signs. By emphasizing the value of traditional diagnostic methods, this review advocates for the integration of clinical signs with modern radiographic techniques to enhance tuberculosis diagnosis and patient care.

Keywords: Eponyms, history of medicine, physical examination, signs, terminology.



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INTRODUCTION

The term “pulmonary tuberculosis” traces its origins to the writings of ancient civilizations in Egypt and Assyria.¹ In ancient Greece, the disease was known as “phthisis (Φθίσις),” a term denoting consumption or wasting away.² Hippocrates (circa 460 BC – circa 370 BC) was among the first to provide a comprehensive description of the disease’s symptoms, including cough, sputum, and fever.³ Later, Galen of Pergamon (2nd century AD) noted tubercles in the lungs of animals but did not fully comprehend their significance in human disease.²

Significant advances in the clinical understanding of tuberculosis emerged in the early 19th century. René Laennec (1781–1826), with his invention of the stethoscope in 1816, revolutionized tuberculosis diagnosis by introducing auscultation and percussion as fundamental diagnostic techniques. He also introduced terms such as pectoriloquy, aegophony, and bronchophony to describe findings in patients with phthisis (tuberculosis).⁴ These innovations laid the groundwork for identifying clinical signs associated with the disease. Before Robert Koch's discovery of the *tubercle bacillus* in 1882, which pinpointed the bacterial cause of tuberculosis, diagnosis relied heavily on physical signs and bedside examinations, with the first documented sign appearing as early as 1768.⁵

Throughout the 19th and early 20th centuries, physicians relied on physical examination techniques such as observation, auscultation, and percussion to identify signs of both pulmonary and extrapulmonary tuberculosis. These “signs” are clinical findings observed during a physical examination, providing crucial insights into the disease. Unlike “symptoms,” which are subjective experiences reported by the patient, signs offer objective, observable evidence of disease. The ability to interpret these signs was essential before the advent of advanced diagnostic technologies.

This review aims to chronicle the historical development of these eponymous signs of tuberculosis, offering a biographical sketch of each physician who first described them and examining the original clinical descriptions of these signs. In doing so, it highlights the critical role these signs played in the diagnosis of tuberculosis and the importance of traditional clinical examination skills in the pre-modern medical era.

MATERIALS AND METHODS

We conducted a comprehensive search of the PubMed and Medline databases using individual names and the following Medical Subject Headings (MeSH) terms: tuberculosis, extrapulmonary, signs, and the specific names of the eponyms. Additionally, biographical searches were performed for each individual, reviewing biographies, relevant papers, reference books, and reviews to gather further pertinent literature. Google searches were also conducted, focusing on obituaries, awards, and notable accomplishments related to the eponyms. The search was limited to biographies and named eponyms in the literature up to August 1, 2024. Two reviewers independently screened the titles, abstracts, and full texts of the retrieved articles for relevance.

RESULTS

Our findings reveal that the early physical signs of both pulmonary and extrapulmonary tuberculosis were encapsulated in 16 eponyms named after scholars from Belgium, France,

Germany, Switzerland, the United Kingdom, and the United States, spanning from 1768 to 1908. The oldest eponym, Whytt sign, dates back to the late 18th century. Of these eponyms, seven were described in the 19th century, and eight in the first decade of the 20th century. Among them, five eponyms are based on auscultation techniques, seven on observation, three on percussion, and one on palpation (Table 1).

Eponymous Signs of Tuberculosis

Whytt Sign

Robert Whytt (1714–1766) was born in Edinburgh, Scotland, and earned his medical degree from the University of Rheims in 1736, with formal recognition from the University of St. Andrews in 1737.⁶ He became a fellow of the Royal College of Physicians, Edinburgh, in 1738, and in 1747, he was appointed Professor and Chair of the Theory of Medicine at the University of Edinburgh.⁷ In 1752, Whytt was elected a fellow of the Royal Society of London, and in 1763, he became President of the Royal College of Physicians, Edinburgh. His service as the First Physician to His Majesty in Scotland began in 1761.⁸ Whytt made significant contributions to both urology and neurology, particularly through his research on the therapeutic use of lime water for kidney stones and his studies on the pupillary response to light, accommodation, and the direct reflex arc.^{6–8}

In his posthumously published work in 1768, Whytt described key diagnostic signs of hydrocephalus in tuberculous meningitis.⁵ He outlined specific symptoms, including a slow and irregular fever and pulse accompanied by vomiting, light sensitivity, and headaches localized around the crown of the head or over the eyes. These symptoms, particularly when seen in children or adolescents, were used to distinguish hydrocephalus from other similar conditions.⁵ This set of symptoms became known as Whytt sign, linked to tuberculous meningitis with hydrocephalus (Table 1).

Jackson Sign

James Jackson Jr. (1810–1834) was born in Boston, United States, and earned his medical degree from Harvard University in 1831.⁹ He continued his medical studies in Paris, where he researched the cholera epidemic in England, Ireland, and Scotland.¹⁰ In Paris, Jackson studied under notable physicians such as Gabriel Andral (1797–1876) and Pierre Charles Alexandre Louis (1787–1872) at La Pitié, as well as Laurent Théodore Biett (1781–1840) at St. Louis Hospital. He also worked as a house-pupil at Hôpital des Enfants Malades during the evenings.¹⁰ His primary focus was on pulmonary diseases, particularly pulmonary tuberculosis. After returning to Boston, Jackson practiced at Massachusetts General Hospital.^{9,10}

Table 1. Eponymous signs of tuberculosis (1768–1908)

| Sign | Year | Description | Method | Significance |
|--|------------|---|-----------------------|--|
| Whytt Sign ⁵ | 1768 | Tuberculous meningitis associated with hydrocephalus | Palpation | Tuberculosis meningitis |
| Jackson Sign ⁹ | 1835 | Prolonged expiratory sound at the apex of the lung in pulmonary tuberculosis | Auscultation | Apical pulmonary tuberculosis |
| Frédéricq-Thompson Sign ^{17,18} | 1850, 1851 | Red to blue color streak observed on the gums, particularly near the upper and lower incisors and molars | Observation | Extrapulmonary (oral) tuberculosis |
| Roque Sign ¹⁹ | 1869 | Presence of unilateral dilation of the pupil in tuberculous involving the thorax | Observation | Tuberculosis with bronchial lymphadenopathy, pneumonia, pleurisy, and pericarditis |
| Smith Sign ²² | 1875 | Murmur auscultated over the manubrium when the patient's neck is fully extended | Auscultation | Bronchial lymphadenopathy |
| Skeer Sign ²⁵ | 1887 | Small yellowish-brown circular rings in the iris, adjacent to the pupil, in patients with tuberculous meningitis | Observation | Ocular tuberculosis meningitis |
| Jürgensen Sign ²⁸ | 1895 | Presence of subcrepitant rales in catarrhal pneumonia, distinguishing it from other conditions, such as tuberculosis | Auscultation | Pulmonary tuberculosis |
| Murat Sign ³⁰ | 1899 | Palpable vibratory sensation over the chest during speech, occurring in both early and later stages of tuberculosis | Observation | Apical tuberculosis |
| Burghart Sign ³³ | 1900 | Rales located at the base of the lung between the midclavicular and anterior axillary lines | Auscultation | Pulmonary infiltrates |
| Roussel Sign ³⁵ | 1900 | Tenderness below the clavicle, identified through percussion, extending from the clavicle to the third or fourth rib | Percussion | Pulmonary tuberculosis |
| Stocker Sign ³⁸ | 1901 | Specific patient behavior which may suggest tuberculous meningitis | Observation | Tuberculous meningitis |
| Rothschild Sign ⁴⁰ | 1903 | Prominence of the sternal angle in patients with pulmonary tuberculosis | Observation | Sternal angle prominence |
| Erni Sign ⁴² | 1904 | Cough induced by striking the upper chest wall around the third thoracic vertebra and scapula, indicating the presence of cavitory pulmonary tuberculosis | Percussion (indirect) | Cavitating pulmonary tuberculosis |
| Gröber Sign ⁴⁴ | 1905 | Dilation of superficial veins in the supraclavicular fossa and upper arm during a Valsalva maneuver, often seen in patients with pulmonary tuberculosis | Observation | Cutaneous venous dilation in chest, deltoid, and supraclavicular fossa |
| D'Espine Sign ⁴⁸ | 1907 | Specific bronchial tone heard between the seventh cervical and fifth thoracic vertebrae, indicating bronchial lymphadenopathy in patients with pulmonary tuberculosis | Auscultation | Bronchial lymphadenopathy |
| De la Camp Sign ⁵¹ | 1908 | Detection of enlarged mediastinal and bronchial lymph nodes using percussion over specific chest and spine areas | Percussion | Mediastinal and bronchial lymphadenopathy |

Jackson described key physical findings in tuberculosis patients, particularly at the apex of the lungs.⁹ These included prolonged expiration, reduced resonance of the voice, absence of the full respiratory murmur, and diminished resonance on percussion. These findings were especially notable at the apex of the right lung, with corresponding postmortem findings.⁹ Jackson sign refers specifically to the prolonged expiratory sound at the apex of the lung in pulmonary tuberculosis (Table 1).

Frédéricq-Thompson Sign

Louis Auguste Frédéricq (1815–1853) was born in Nevele, East Flanders, Belgium. After completing his medical degree in 1840 and his doctorate in surgery in 1842 from the University of Ghent, he practiced in Menin and later became the chief physician at the Viellards Hospital in Kortrijk in 1850.¹¹ He also served as a physician at the Hospital of the Elderly in Courtrai and founded the Society of Emulation in West Flanders in 1847.¹² Additionally, Frédéricq was the founder and editor-in-chief of the *Journal de l'Observateur des Sciences Médicales* and served as a battalion physician for the Kortrijk Civil Guard Legion.¹²

Theophilus Thompson (1807–1860) was born in Islington, London, and received his medical degree from the University of Edinburgh in 1830.¹³ He practiced in London and became a physician at the Northern Dispensary and later at the Hospital for Consumption in Brompton in 1847.¹⁴ He was elected a fellow of the Royal College of Physicians in 1846 and served as President of the Medical and Harveian Societies.^{15,16}

In his 1851 paper, Theophilus Thompson noted in patients with tuberculosis a mark at the edge of the gums, deeper in color than the surrounding tissue, varying from a streak to a broader margin, often around the lower incisors and sometimes the molars.¹⁷ Similarly, Louis Auguste Frédéricq referenced a livid or white streak on the gums, varying in color from brick-red in active cases to bluish in less active forms. He emphasized that this streak serves as an early sign of tuberculosis, appearing alongside the onset of a cough.¹⁸ Frédéricq-Thompson sign refers to the red to blue color streak observed on the gums, particularly near the upper and lower incisors and molars (Table 1).

Roque Sign

We were unable to locate detailed historical information about François Jean-Baptiste de La Roque (1840–?). La Roque made his observations while working with children at the Jules Parrot Department at the Hospice des Enfants-Assistés, who were affected by pulmonary tuberculosis, bronchial lymphadenopathy, pneumonia, pleurisy, and pericarditis.¹⁹ He noted an association between these conditions and pupillary inequality, stating that “the largest pupil

corresponded to the side of the lesion.”¹⁹ However, La Roque also observed that “the pupil inequality at the beginning of the condition is not continuous” and that “at the onset of the disease, the pupils are often equal and contracted rather than generally dilated and unequal.”¹⁹ Roque sign refers to the presence of unilateral dilation of the pupil in cases of tuberculosis involving the thorax (Table 1).

Smith Sign

Eustace Smith (1835–1914) was born in London and earned his medical degree from University College London in 1865.²⁰ He served as an assistant physician at Victoria Park Chest Hospital in 1870, later becoming a senior physician at the East London Hospital for Children in 1874. Smith was also a consulting physician at the London Hospital for Diseases of the Chest.²⁰ He became a fellow of the Royal College of Physicians in 1874 and served on its council from 1896 to 1898. Smith was knighted as Chevalier of the Order of Leopold by King Leopold II of Belgium for his service. He authored several medical texts, including *On the Wasting Diseases of Infants and Children (1868)* and *A Practical Treatise on Disease in Children (1884)*.^{20–22}

In 1875, Smith described a method to detect enlarged bronchial glands in children with tuberculosis.²² He observed that if the child’s head is tilted backward, a venous hum could be heard with a stethoscope placed on the upper part of the sternum. The hum’s intensity was based on the size of the bronchial lymph nodes and would diminish as the head was slowly returned to a normal position.²² The sign requires mobile bronchial lymph nodes or a relatively flat chest for the murmur to be detected. Smith sign refers to a murmur auscultated over the manubrium when the patient’s neck is fully extended (Table 1).

Skeer Sign

John Dungan Skeer (1825–1898) was born in Butler County, Pennsylvania, United States, and earned his medical degree from Cincinnati Eclectic Medical College in 1852.²³ He practiced in Pennsylvania and Ohio before serving as an assistant surgeon in the 16th United States Infantry during the Civil War, where he oversaw Hospital No. 9 in Nashville, Tennessee. After passing the Illinois State Medical Board in 1863, Skeer was commissioned as a full surgeon in Chicago and later became vice-president of the Chicago Pathological Society.²⁴

Skeer presented a clinical finding at the Pathological Society of Chicago, which he believed was pathognomonic for tuberculous meningitis.²⁵ He observed small yellowish-brown circular rings on the iris near the pupillary border, most visible in patients with brown eyes. These rings enlarged with

pupillary dilation and became more distinct over time. Initially, the rings appeared as whitish, transparent ribbons, gradually turning into a blanched, irregular band around the iris within 12 to 36 hours.²⁵ Skeer sign refers to the presence of these circular rings in the iris, adjacent to the pupil, in patients with tuberculous meningitis (Table 1).

Jürgensen Sign

Theodore von Jürgensen (1840–1907) was born in Flensburg, Germany, and studied medicine at the universities of Kiel, Breslau, and Tübingen, earning his medical degree in 1863.^{26,27} He began his career at the Medical Clinic in Kiel under Karl Heinrich Bartels, eventually becoming the director of the Medical Polyclinic and associate professor in 1869.²⁷ In 1873, Jürgensen was appointed full professor and head of the Medical Polyclinic at the University of Tübingen.^{26,27}

Jürgensen identified a key auscultatory finding in catarrhal pneumonia: the presence of rales, specifically subcrepitant rales, which he emphasized as never being ringing in quality.²⁸ John L. Cook supported this observation but noted that, although characteristic of catarrhal pneumonia, subcrepitant rales are absent in pulmonary tuberculosis, hemoptysis, and pulmonary edema.²⁹ Thus, Jürgensen sign refers to the presence of subcrepitant rales in catarrhal pneumonia, differentiating it from other conditions such as tuberculosis (Table 1).

Murat Sign

Historical information on Louis Murat (born in 1874) is not readily available. However, Murat documented a unique vibratory sensation experienced by tuberculosis patients.³⁰ He noted that when patients spoke loudly or made a humming sound, they perceived a vibration in the tuberculous lung, particularly at its apex.³⁰ In some cases, patients attempted to reduce this uncomfortable vibration by keeping the affected side of their body close to themselves during conversation. Murat³⁰ emphasized that this resonance did not always coincide with the sensation of vibration. Murat sign refers to this palpable vibratory sensation over the chest during speech, occurring in both early and later stages of tuberculosis (Table 1).

Burghart Sign

Hans Gerny Burghart (1862–1932) studied medicine in Strasbourg and Berlin, initially working as an assistant and staff physician at Ernst Viktor von Leyden's First Medical Clinic at the University of Berlin.³¹ In 1896, he became a Privatdozent of Internal Medicine in Berlin, later serving as director of the department of internal medicine at the Municipal Hospital Dortmund in 1901.³² He also worked at Elisabeth-Diakonissen-Krankenhaus in Berlin and was promoted to associate professor at the University of Berlin in 1912.³¹

Burghart identified an auscultatory finding in early tuberculosis patients.³³ He observed that rales were seldom heard over the diseased lung apex but were commonly found at the base of the lung, particularly between the midclavicular and anterior axillary lines. These rattling sounds, caused by bronchial secretions, often appeared after coughing or deep inspiration and were an early sign of tuberculosis, even when minimal sputum was produced.³³

Burghart also noted that the sound of the rales could vary depending on the consistency and duration of the bronchial secretions. Initially, they presented as moist, medium-sized rales but would gradually become drier and more crepitant as the secretions thickened and remained in the lungs.³³ Thus, Burghart sign refers to the presence of rales located at the base of the lung between the midclavicular and anterior axillary lines (Table 1).

Roussel Sign

Biographical information on Antoine Roussel is limited. He served as a physician at hospitals in Saint-Étienne, Loire, France, and authored several works, including his 1896 thesis *Contribution à l'étude des paralysies pneumoniques (Contribution to the Study of Pneumonic Paralysis)*. He also wrote about topics such as infectious phlebitis and hereditary conditions.³⁴

In 1900, Roussel described a diagnostic method for detecting early-stage pulmonary tuberculosis. The method involved percussing a finger against the fingernail of the opposing hand to identify a tender point located beneath the clavicle.³⁵ This tender area extends vertically from the clavicle to the third or fourth rib and spans three to four centimeters on either side of the line. Thus, Roussel sign indicates subclavicular tenderness identified through percussion, extending from the clavicle to the third or fourth rib (Table 1).

Stocker Sign

Biographical information on James Stocker (1805–1878) is limited. Born in Surrey, Southeast England, Stocker served as the resident medical officer, secretary to the Medical School, and apothecary at Guy's Hospital in London.^{36,37}

Stocker's observation on patient behavior during examination was noted: if a patient passively remained on their back when the examiner pulled down the bedclothes to look for spots, it likely indicated a fever; however, if the patient reacted belligerently, pulling up the sheets and turning onto their side, it was more likely a sign of a brain condition, such as tuberculous meningitis.³⁸ Thus, Stocker sign refers to this specific patient behavior, which may suggest the presence of tuberculous meningitis (Table 1).

Rothschild Sign

David Rothschild (1875–1936) was born in Bad Soden am Taunus, Germany, and studied medicine in Würzburg, Heidelberg, and Giessen, earning his doctorate in 1897.³⁹ He began his medical practice in Würzburg in 1898 and later trained in clinics across Europe, including Italy, France, England, and Russia.³⁹ He served as a consulting physician for pulmonary diseases and held various medical positions in Bad Soden and Frankfurt, Germany. After World War I, Rothschild became the head physician at the Garrison Hospital's lung ward. In 1933, he emigrated to Stockholm.³⁹

In his observations on the sternal angle in patients with pulmonary tuberculosis, Rothschild noted that the angle was often flattened due to changes in the chest's anterior-posterior diameter, a characteristic of tuberculosis. Although some earlier assumptions suggested that the sternal angle was more pronounced in tuberculosis patients, Rothschild clarified that this was due to growths of intermediate cartilage rather than a backward inclination of the manubrium.⁴⁰ Thus, Rothschild sign refers to flattening of the sternal angle in patients with pulmonary tuberculosis (Table 1).

Erni Sign

Biographical information about Heinrich Erni-Greiffenberg is limited. He practiced medicine in Gersau, Switzerland, and authored several works, including *Die Cholera in Indien (The Cholera in India)* in 1889 and *Die Behandlung der Lungenschwindssucht (The Treatment of Pulmonary Consumption)* in 1898.⁴¹

Erni described a percussion technique known as the “tapping sign” to detect pulmonary cavities in patients with pulmonary tuberculosis. The method involves lightly striking the chest wall at the lung's apex using the handle of a knife, allowing it to bounce off the thoracic wall. Erni found that when this technique was applied to certain patients, it triggered a cough and immediate sputum expectoration.⁴² He noted that the response was localized to the upper part of the lung, specifically between the third thoracic vertebra and the spine of the scapula, with the most prominent reactions occurring in the subclavicular fossa.⁴² Thus, Erni sign refers to the cough induced by striking the upper chest wall in the area around the third thoracic vertebra and scapula, indicating the presence of cavitary pulmonary tuberculosis (Table 1).

Gröber Sign

Historical information on Franz Arthur Gröber (1875–1918) is limited. He worked as an assistant at the Pharmacological Institute and qualified as a lecturer, delivering an inaugural lecture on the treatment of acute poisoning.⁴³

Gröber identified a diagnostic finding involving the dilation of superficial cutaneous veins in patients with intrathoracic diseases, including pulmonary tuberculosis. He observed that during Valsalva maneuvers, the cutaneous veins on the affected side of the thorax—specifically in the supraclavicular fossa and the upper third of the upper arm—swelled more significantly and earlier than on the healthy side.⁴⁴ This finding indicated the presence of pathological changes within the thorax, although the absence of this sign did not rule out intrathoracic disease. Thus, Gröber sign refers to the dilation of superficial veins in the supraclavicular fossa and upper arm during a Valsalva maneuver, often seen in patients with pulmonary tuberculosis (Table 1).

D'Espine Sign

Jean Henri Adolphe d'Espine (1846–1930) was born in Geneva, Switzerland, and received his medical degree from the University of Paris in 1872.⁴⁵ He served as a surgeon during the Franco-Prussian War and later held several prominent academic and administrative positions, including professor of internal pathology at the University of Geneva, dean of the Faculty of Medicine, and rector of the University of Geneva. D'Espine also became the first chair of pediatrics at the University of Geneva and served as vice-president of the International Committee of the Red Cross from 1914 to 1923.^{45–47}

D'Espine is best known for describing an auscultatory method for diagnosing early tuberculosis in the bronchial lymph nodes of children. He noted that the first signs of bronchial lymphadenopathy could be detected through auscultation of the voice, specifically between the seventh cervical and first thoracic vertebrae. In the early stages, a “whispering” tone is heard, while in more advanced stages, bronchophony is present.⁴⁸ The tone is typically heard in the area where the trachea bifurcates into the bronchi, which corresponds to the posterior lymph node region commonly affected by tuberculosis. Thus, D'Espine sign refers to the presence of a specific bronchial tone, heard between the seventh cervical and fifth thoracic vertebrae, indicating bronchial lymphadenopathy in patients with pulmonary tuberculosis (Table 1).

De la Camp Sign

Oskar de la Camp (1871–1925) was born in Hamburg, Germany, and trained at Eppendorf Hospital. He served as an assistant and later as a senior physician at the Second Medical Clinic at Charité Berlin under Professors Carl Gerhard and Friedrich Kraus.⁴⁹ De la Camp received his *Venia legendi* in 1905 and held several prestigious positions, including director of the Polyclinic in Marburg and later the Medical Clinic in Freiburg.^{49,50}

De la Camp described a percussion method for detecting enlarged mediastinal and bronchial lymph nodes in patients, particularly children. He identified two primary areas where percussion revealed signs of lymph node enlargement: behind the upper sternum and near the spine at the level of the second to fifth thoracic vertebrae in the interscapular space.⁵¹ This technique was effective for diagnosing mediastinal and bronchial lymph node enlargement. Thus, De la Camp sign refers to the detection of enlarged mediastinal and bronchial lymph nodes using percussion over specific areas of the chest and spine (Table 1).

CONCLUSION

This review has explored the historical and clinical developments in tuberculosis diagnostics, highlighting the contributions of key medical figures from the late 18th to early 20th centuries. Physicians of this era, working with limited diagnostic tools, identified several signs—now recognized as eponyms—that assisted in diagnosing tuberculosis. Their discoveries not only reflect the evolution of medical practice but also underscore the critical role of physical examination in understanding the disease.

While some signs, such as Smith sign and Roque sign, which indicate advanced stages of pulmonary tuberculosis and involve bronchial and mediastinal lymphadenopathy, remain relevant in modern clinical practice, others have been found to be nonspecific. For instance, Whytt's description of increased intracranial pressure and a slowed pulse is now recognized as the Cushing reflex, a nonspecific finding. Similarly, Jackson's auscultatory findings at the lung apices, along with signs described by Thompson, Frédéricq, and Skeer, can occur in other pulmonary or systemic diseases, reducing their diagnostic specificity for tuberculosis.

Despite these limitations, this review emphasizes the enduring importance of clinical signs in tuberculosis diagnostics. Integrating these historical findings with modern diagnostic tools, such as imaging and laboratory tests, can enhance diagnostic accuracy and improve patient care. The educational value of these signs also preserves the rich heritage of medical practice, refining clinical skills and promoting a comprehensive approach to tuberculosis diagnosis.

In summary, the identification of tuberculosis-related signs through physical examination techniques such as observation, palpation, percussion, and auscultation provided early insights into pulmonary and extrapulmonary conditions. While their clinical utility may vary in contemporary practice, understanding these signs remains vital for a thorough diagnostic process, especially when combined with patient history and advanced imaging methods. This comprehensive approach ensures more accurate diagnoses and more effective, evidence-based healthcare.

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