A hundred years ago, the discovery of Treponema pallidum
Há 100 anos, a descoberta do Treponema pallidum

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**Abstract:** The discovery of Treponema pallidum by Schaudinn & Hoffmann, on March 3rd 1905, was influenced by Siegel's communication on the finding of the etiological agent of syphilis. John Siegel, working at the Institut of Zoology, University of Berlin, claimed to have found a flagellate protozoan in syphilitic lesions. Because of the skepticism it was received with, this communication yielded further investigation, conducted by zoologist Schaudinn and dermatologist Hoffmann. They were the first investigators to find the etiological agent of syphilis, described under the name of Spirochaeta pallida. The discovery of Treponema pallidum on March 3rd 1905 was the first step towards the development of diagnostic and therapeutic procedures in subsequent years.

Keywords: History of Medicine; Syphilis; Treponema pallidum

**Resumo:** A descoberta do Treponema pallidum por Schaudinn & Hoffmann em 3 de março de 1905 foi influenciada pela comunicação de Siegel, sobre a descoberta do agente etiológico da sífilis. Encarada com ceticismo, a comunicação acarretou novas investigações, conduzidas pelo zoólogo Schaudinn e pelo dermatologista Hoffmann - primeiros observadores do agente da sífilis, denominado Spirochaeta pallida. A descoberta foi o passo inicial para o desenvolvimento dos procedimentos diagnósticos e terapêuticos nos anos subsequentes.

Palavras-chave: História da Medicina; Sífilis; Treponema pallidum
decision about the publication, Neufeld abandoned the group. Schaudinn & Hoffmann published a provisional paper on the presence of Spirochaeta pallida in the secretion of syphilitic papilomas, in the journal of the Imperial Health Service, on April 25th 1905, Hoffman’s 37th birthday ("Vorläufiger Bericht über das Vorkommen von Spirochaeten in syphilitischen Krankheitsprodukten und bei Papillomen", In: Arbeiten aus dem Kaiserlichen Gesundheitsamt, XXII: 527-534; 25 Apr 1905). Schaudinn & Hoffmann differentiated the delicate spirochete from the rougher Spirochaeta refringens found in mucosas.

On May 17th 1905, Schaudinn & Hoffmann presented their results at the Berlin Medical Society meeting, generating an enormous controversy and skepticism. Many researchers had doubts about the authenticity of the fact, among them Oskar Lassar. Siegel and followers joined the opposing group, advocating Citorrhctes luis as the etiologic agent, arguing that Schaudinn’s finding was nothing but dust (artifact). The situation increased in embarrassment as the president of the Berlin Medical Society closed the session by ironically saying: “the session is closed until a new etiologic agent is found for syphilis”.

Albert Neisser, a renowned venerologist, wrote a letter doubting the veracity of the discovery, emphasizing his disbelief that Spirochaeta was indeed syphilis etiologic agent. However, this disbelief lasted no more than a month, when Neisser recognized Schaudinn’s discovery. Hoffmann credited all the glory of discovery to Schaudinn’s cleverness, affirming that his own role had been only of collector of the material. Numerous works were published after the discovery, confirming the spirochete and launching a phase of diagnostic and therapeutical consolidation.

Illya Metschnikow found Spirochaeta pallida in ulcers of monkeys inoculated with syphilitic secretions, and Abraham Buschle detected the treponema in the liver and spleen of a child who died because of congenital syphilis, confirming the discovery of Schaudinn & Hoffmann.

In October 14th 1905, Schaudinn wrote a letter to Hoffman proposing to assign Spirochaetata pallida to a new genus with the denomination Treponema pallidum.

Their research partnership was interrupted by the passing of Schaudinn, in 1906, not before his acknowledgement by all Europe, when he was praised by the very same professors who had contested him. The greatest acknowledgement and homage to Schaudinn, however, occurred at the International Medicine Meeting in Lisbon. His presence in the conference room led Professor François Hallopeau to stand from the president’s chair and ask the audience to rise and applaud him. Schaudinn had barely begun thanking when a new overwhelming applause filled the room.

Schaudinn’s misfortune began during his journey back to Germany, when he underwent an urgent surgery aboard due to gastrointestinal amebian abscesses. Such amebian infection had probably been voluntarily acquired when he did research on amebas. Schaudinn was a little under 35 years of age when he died in July 22nd, 1906.

Hoffmann carried on with his work by delivering lectures and occupying the highest university positions in Halle and Bonn. During the nazi years he lived outside of Germany, but went back to Bonn, where he set up a laboratory. In 1948 and 1949 he published two books, products of his medical life: Wollen und Schaffen e Ringen um Vollendung.

REFERENCES

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