

DAVID GRUBY  
[1810-1898]

By THEODORE ROSENTHAL, M.D.

NEW YORK CITY

NO introduction should be necessary to a biography of David Gruby, one of the most brilliant biological investigators of the last century. It is especially interesting to dermatologists, inasmuch as Gruby was the man who discovered the true nature of all human ringworm affections, and with Berg and Schönlein, shares the honor of the discovery of the causes of thrush and favus, respectively. He also discovered and named the trypanosome, studied the *Demodex folliculorum* in man, investigated other animal parasites and wrote on various subjects in pathology and comparative anatomy.

Gruby was born on August 20, 1810 in a little village in South Hungary, in the midst of dire poverty. His parents had a little farm; the youngest son, David, did not like farming and it was intended to apprentice him to a watch- and spectacle-maker, but the boy was studiously inclined and insisted that he wished to become a doctor.

One fine morning his mother placed an apple and a large loaf of bread in his knapsack, his father bestowed a 50 kreutzer piece upon him and he went forth with their prayers, bent on his ambition to study medicine.

Working his way from village to village he finally reached Pest. Not being eligible for admission to the university, he used to listen to the lectures from the doorway. The professor, stirred by his desire to learn and concerned with the pranks and

tricks with which the other students overwhelmed the poor boy, took an interest in him and permitted him to continue his studies. His ambitions were not satisfied, however, and soon after we find him in Vienna, where he lodged, curiously enough, in the *Küssden Pfennig*, an old inn which had sheltered Paracelsus, in the *Adlergasse*.

Gruby was so poor that he was obliged to club together with a comrade to buy candles for light. The two friends would study their lessons together and then repeat them to each other, first however, economically snuffing the candles. When the tax gatherers came, he frightened them away by generating chlorine. He also found time to worship at the shrine of *Terpsichore*, he was said to be the best waltzer in Vienna.

By practicing great economy, he made a microscope himself. Here one thinks of *Leeuwenhoek* and also of *Spinoza*, that other lens grinder of genius. *Rokitansky*, the foremost pathologist of Europe, singled out this ardent and patient pupil, and in 1835, induced him to publish his first paper, on the morphology of pus cells. His chief interests were in anatomy, physiology and pathological anatomy; he also studied ophthalmology.

Gruby received his doctorate both in medicine and ophthalmology on March 18, 1839, with a dissertation on the influence of water on the animal economy. Unfortunately this was not printed and has been lost to science.

By special permission of the famous surgeon *Von Wattman*, Gruby was

allowed to assist at operations in the hospitals, *Operationszögling*. It is interesting to note here, that Hebra,

also worked in the Foundling Asylum, where the pathological laboratory was put in his charge.



FIG. 1. DAVID GRÜBY (1810-1898).

before going to Skoda, worked with Von Wattman, and as his first publication wrote a 434 page book on major operations according to Von Wattman's principles. It is not known whether Hebra and Gruby ever knew each other personally.

By this time Gruby's work had attracted such attention that he was offered an extraordinary professorship at Vienna, but for personal reasons he refused it. He had recently made the acquaintance of the French surgeon Roux, the successor of Dupuytren, who, interested in Gruby's anatomical work and appreciative of his qualities, advised him to go to Paris.

After a short time spent in England, Gruby arrived in Paris in the latter part of 1840. He repaired immediately to the Hôpital Saint-Louis and the Salpêtrière, where the services of dermatology and neuropathology were then the foremost in the world. He

At that time Crémieux was in power and thanks to his help and support, Gruby was naturalized in 1848. Soon after his arrival in Paris, he opened a course in pathological anatomy as a means of earning a living. In a short time his renown spread and he attracted a group of brilliant pupils, included among whom were Claude Bernard, Flourens, Milne-Edwards and Magendie.

The courses, which he conducted for thirteen years, had a great success and were attended by many prominent medical men.

In a short while he gained a foothold among the Parisians, adapted himself to his surroundings, and familiarized himself with their habits. Soon paper followed paper to the Académie des Sciences, and before long he had created a new chapter in medicine, under the title of parasitic diseases. At first everyone laughed and poked fun at the presumptuous stranger who

was running afoul of the humoral theories. What is this boaster going to do with his molds, they asked. He takes the head for a botanical garden, and the mouth for a hothouse!

In 1835 the mycotic nature of the epidemic disease of the silkworm, muscardin, was discovered in Milan by Balsamo and Bassi. This stimulated interest in fungous diseases, and on all sides investigators focussed their attention on maladies which might possibly be caused by these newly found pathogens. The mycotic nature of favus was discovered almost simultaneously in three countries.

In Berlin, in 1837, Robert Remak, famed for his discovery of the axis-cylinder and other anatomical researches, observed that favus crusts were made up of an aggregation of mycelial filaments, which distinguished them from other crusts. It did not occur to him, however, that they were the cause of the disease.

Working in Zurich, Schönlein in 1839 demonstrated the vegetable nature of the so-called dry pustules of favus.

Two schools of thought arose: Remak, Fuchs and others believed with Schönlein, but still others, Klenke, and Langenbeck among them, claimed to have seen mycelial filaments in other conditions beside favus, such as in lupus, and in divers other cutaneous affections. On account of these controversies the general medical public had taken little interest in these discoveries. It was quite startled therefore when it was rumored that David Grüby had presented a mémoire entitled "Sur une végétation qui constitue la vraie teigne" at the Académie des Sciences on July 12, 1841.

It may be said definitely that the modern study of fungous diseases

dates from this point. Grüby is the man who discovered the true nature of all human ringworm affections.

His first mémoire, apart from its scientific value, has great historical importance. He began it with a clear exposition of the uncertainties and contradictions held by the various schools of opinion. He then proceeded to describe the favus crust. The account is so precise and exact that it is difficult to understand how Grüby was able to make such a minute description, lacking as he did the advantages of modern microscopic technique.

The first effect of this communication was to evoke many disclaimers of priority, and incidentally to acquaint the world with the previous works of Remak and Schönlein. Grüby contented himself with replying to the Académie that he had not known at all of Schönlein's work, and that it differed from his in description and conclusions, all of which was true.

The honor of naming the newly discovered parasite rests with Remak; he differentiated the organism from the genus *oidium*, created the genus *achorion*, and called it *Achorion schönleinii*.

Grüby next directed his attention to the study of thrush. He soon demonstrated that the membrane in this disease is not an inflammatory exudate, but was practically a pure culture of a parasitic body. A careful description of the organism was given in great detail. In the same year, 1842, a young Swedish physician, F. F. Berg, who had attended Grüby's courses in Paris described the same organism. It is quite probable that the discovery was made simultaneously, and independently. The organism was named in 1853 by

Charles Robin, who called it *Oidium albicans*.

Grüby now applied himself anew to a study of the affections of the hairy regions, and published within a period of three years, three papers on three different parasitic diseases.

The first of these dealt with a fungous affection of the chin, and was called "Sur une espèce de mentagre contagieuse résultant du développement d'un nouveau cryptogame dans la racine des poils de la barbe de l'homme."\*

This paper has the same fault that characterized his others; namely, his clinical descriptions are so succinct and abbreviated that the reader has trouble in recognizing the clinical entity in question. However, these faults do not detract in the least from the micrographic value of the work. The description of the parasite is exact, and leaves no doubt of its identity. It is of the type known today as *Trichophyton ectothrix*.

All of Grüby's papers show him to have been an expert mycologist but only a mediocre dermatologist. He should not have been content with describing new parasites; the glory of discovering new organisms and of initiating new experimental doctrines would have been greater had he indicated in what morbid conditions he had found them, so that other investigators could have easily confirmed his work. Medical men of his time recognized inflammations of the bearded areas, but the organism that Grüby had just described remained confused among them. Those who accepted his description wished to find his fungus in every affection of that region, while the scoffers who failed

to find it in a single case took delight in denying the truth of his statements.

The confusion was even worse with the paper that followed. A brief account of the situation with regard to ringworm of the scalp at that time was as follows: a poor description and a good plate had been given by Willan and Bateman in England, and an excellent description with a mediocre plate by Mahon, which was followed by that of Alibert. Apparently the diagnosis of ringworm of the scalp in France from 1830-1840 was made only by the brothers Mahon, laymen. To add to the chaos one must realize that, both in French and English there was a multiplicity of names for each clinical type of disorder. In 1840 Cazenave gave a masterly description of the condition, and differentiated for the first time between ringworm of the scalp and alopecia areata.

Grüby's paper on the same subject was almost contemporary with Cazenave's book. Cazenave was one of the few men of the time who had an exact clinical knowledge of ringworm of the scalp. In his following paper, Grüby tried to prove the mycotic origin of diseases which were still poorly understood by the rest of the world, and precise description of all clinical facts was imperative; hence it is not to be wondered that many mistakes resulted.

The next paper was called "Recherches sur la nature, le siège et le développement du Porrigo Decalvans ou Phyto-Alopecie."\*

*Porrigo decalvans* (really alopecia areata) was at that time only a definition promulgated by Bateman, and according to him was characterized by areas of apparently normal skin,

\* *Compt. rend. Acad. de sc.*, vol. 15.

\* *Compt. rend. Acad. de sc.*, Aug. 11, 1843.

devoid of hair. Gruby's clinical description is entirely different. The first error in Gruby's paper was, therefore, the fact that not only did he not describe clearly the disease in which he was about to discover a new parasite, so that it was impossible to recognize, but he even gave it the name of another disease.

This error, which all dermatologists should have immediately recognized, was noted by no one. Another serious fault is the fact that Gruby, throughout his paper speaks of "individuals," without once stating that they were all children.

But when Gruby, leaving the field of clinical medicine begins his microscopic description, all his mastery is evident. Indeed, Sabouraud remarks that when he rediscovered the parasite in 1892, without knowing that it had been described before, his account was far from equalling that of Gruby fifty years before.

Gruby called the organism which he had discovered the *Microsporon audouini*, after the celebrated zoologist Jean Victor Audouin.

Ten months later Gruby published a paper on a subject analogous to his preceding one, entitled "*Récherches sur les cryptogames qui constituent la maladie contagieuse du cuir chevelu décrite sous le nom de teigne tondante (Mahon) herpès tonsurans (Cazenave).*"\* This paper is his best; it is interesting to note that the technical value of each increases in the order of their appearance. The organism described here is *trichophyton endothrix*.

In 1845 the work of Malmsten appeared on the same subject. This was inferior to Gruby's paper, but better

known because in it he named the new organism, calling it *Trichophyton tonsurans*. Later Hardy created the neologism *trichophytosis*.

Great discussions and acrimonious disputes arose following the discoveries of Gruby. Bazin was the first, at Saint-Louis, to accept the doctrine of the parasitic nature of the ringworm diseases. He was followed by Hardy, Devergie and others.

Gruby's work means a great deal; the discovery of the parasitic nature of these dermatoses marks the beginning of a new epoch, not only for dermatology but for medicine itself.

In the same period, 1840-1845, the indefatigable and versatile Gruby busied himself with problems in comparative anatomy, studied the *Demodex folliculorum* which Henle had discovered in 1841, and discovered in the blood of the frog a corkscrew like organism which he called *trypanosome*. He also made investigations into the anatomy and physiology of the chyle apparatus of suckling animals, the venous system of frogs, the purple-bearing organ of shellfish, and an epidemic disease of potatoes.

In 1847-1848 he experimented with the action of ether and chloroform on animals.

Although Gruby never published it, it is interesting to learn that in 1848 he was the first to study a streptothrix-like fungus found in a concretion in a tear duct, which was subsequently described by Albrecht von Graefe in 1853.

At about this time he gave up his investigative work and began to devote himself to the practice of medicine.

In 1854 Gruby received permission to practice in France, and gave himself whole-heartedly to his patients. Many

\* *Compt. rend. Acad. de sc.*, April 1, 1844.

have regretted his devotion to his practice. The abandonment of his investigative work involves a most profound psychological change which it is impossible to fathom. What would this man have accomplished had he continued his scientific work?

He soon became a popular and fashionable physician, famed for the originality of his prescriptions and his advice. For decades he counted artists, musicians, and literateurs among his patients. Among them were Chopin, Lamartine, Heine, George Sand, Liszt, and Alphonse Daudet. Max Nordau, who also was treated by him, called him a "Dervish Healer." Diplomats among his clientèle were Emile Ollivier, and Count Eckstaedt, as were also Alexandre Dumas père et fils, and Ambroise Thomas, composer of "Mignon."

Grüby, in the course of his practice, made use of suggestion therapy to a large extent, and apparently accomplished very real results. Among his patients were many suffering from psychoneuroses and gastric complaints and in these particularly he had many brilliant cures.

His faithful secretary, LeLeu, gives us a picture of his apartment: a large spacious room filled with exotic plants. Alongside of beautiful microscopic preparations lie brochures and pamphlets, while scattered in heaps all about are old journals, occupying tables and chairs. Here and there were morsels of food neglected by the master. On receiving a patient, it was often necessary to clear two chairs of the accumulated books and papers before they could be seated.

Grüby was short and somewhat stocky. He wore his hair long, combed back. With his soft deep eyes, his smooth face, his large ironic mouth

and good natured nose, his superb classic profile was one that could not be forgotten. He spoke French poorly, with a German accent, and was brief and abrupt in his speech. He never married.

His handwriting was execrable; at the end of a consultation he would often have the patient write the prescription at his dictation. His manner with patients was curt and dictatorial, and he would brook no interference with his regimens. If a patient was too prolix, he would pretend to fall asleep. When the luckless patient complained he would ask, "What else could I do? Your words are so much gas!"

He was called once to see a fashionable lady who was suffering from a paralysis of the legs which resisted all treatment. "Take care of my tapestry," she cautioned the servants who were bringing lamps to light the room. "It would be a misfortune should it be stained with oil." Hearing this, Grüby took the oil container and pretended to examine it. He slyly allowed a drop to fall near the tapestry, the patient exclaimed and with one leap left her chair and rescued her precious tapestry.

At another time, he was advising a highly nervous woman, with a gastric complaint, whom everyone believed to be seriously ill. "You will rise tomorrow at 8:30," commanded Grüby, "and drink a cup of tea. Then you must walk the Avenue du Bois, and at the end of your walk, drink a glass of water. Back home at 10 A.M. you will take a second cup of tea. The important thing is that the glass of water must be between the two cups of tea."

One day the poor woman awoke late. As it was time for the glass of water, she omitted the first cup of tea. After

a while she experienced gastric pain and distress and Grüby was called. "Very grave," said he. "Happily there is a way of putting the water in its proper place. The cup of tea that you did not take from above (by mouth) you will administer to yourself from below, and thus reestablish the equilibrium."

Edmond Goncourt, in the "Journal des mémoires de la vie littéraire," relates that Grüby was called to see Heinrich Heine at the onset of his illness and believed that his ocular affection was due to a disease of the spinal cord. Ultimately a diagnosis of tabes was made. Ten years later Grüby was again called to the bedside of the lame and blind poet. To Grüby's comforting word that he would still live long, Heine retorted "Don't tell my wife." In the course of the neurological examination, when asked whether he could whistle, he said, "Unfortunately not loud enough to hiss down the plays of Scribe."

Alexandre Dumas *père*, that hard worker, broken down by literary over-exertions and lack of exercise, was told, "Tomorrow morning leave the house at 6 A.M. and buy three apples at a certain fruiterer. Eat the first at the Arc de Triomphe, the second at the Quai d'Orsay and the third at the Place de la Madeleine. Then return home on foot." It is unnecessary to state that Dumas was quite well at the end of two weeks of such a regime.

Grüby was very careless about financial matters. His fee was fixed, ten francs, regardless of the time of day or the station in life of the patient. Checks and accounts were scattered indiscriminately about his quarters.

Several years before the war in 1870, Grüby had installed an astronomical and meteorological observatory in a house in the Montmartre, in the Rue

Lépic. During the war, he placed it at the disposal of the military authorities, who found it of great service. He subscribed heavily to the funds for the relief of the wounded, gave 10,000 francs to form a company of Franc-Tireurs in his arrondissement, and donated a plot of land for a parade ground for drilling troops.

Later he himself attended an emergency dressing station. He endeavored to improve on the defective methods for the evacuation of the sick and wounded to the rear, and even devised a number of appliances, such as a wheeled litter, a movable bed, wheel-chairs and a mobile sterilizer for disinfecting garments.

In the last twenty years of his life, he interested himself in many philanthropic and educational works, such as the Free Loan Society, Association des Dames Françaises, and the National Topographic Association and in charitable deeds among his Austro-Hungarian countrymen.

The Republic was tardy in recognizing his services. It was on July 14, 1890, that he was made a Chevalier of the Legion of Honor.

For some years before he died, his popularity waned and his practice diminished. One day he confined himself to his room and ordered his servants not to disturb him. After two days of silence, the door was forced November 14, 1898, and Grüby was found dead, lying quietly as if he slept.

At his death, the German medical literature ignored him completely; only in Vienna the newspapers commented on it, and they spoke of him as a Frenchman. In France, his eccentric genius was accorded better recognition. His secretary wrote a volume of reminiscences: "Le Docteur Grüby, Notes et Souvenirs,"<sup>3</sup> by L. LeLeu;

while a very fine appreciation by Raphael Blanchard appeared soon after his death.<sup>1</sup>

## REFERENCES

1. BLANCHARD, R. *Arch. de parasitol.*, 1: 43, 1899.
2. HELME, F. *Presse méd.*, 17: 113 (annex), 1909.
3. LÉLEU, L. *Le Docteur Gruby—Notes et Souvenirs*. Paris, 1908.
4. RILLE, J. H. *Dermat. Wchnschr.*, 82: 552, 1926.
5. SABOURAUD, R. *Les Teignes*. Paris, 1910.

