

Rhinophyma: its various medical descriptions until its final denomination in the 19th century

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All three authors participated to the research. Albert Mudry wrote the text.
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Abstract :

Introduction: The word rhinophyma is mentioned for the first time in 1869 by Ferdinand von Hebra. The aim of the present study is to look back over the chronological medical description of this nasal disfigurement until its definitive acceptance as rhinophyma in the second part of the 19th century.

Methods: It refers only to original texts and documents, and focusses on its description in medical writings. It is conducted through a compilation of the main books and articles related to this topic.

Results: Four historical periods are recognized : 1. 11-17th centuries: Face redness and swelling, pustules, leprosy, gutta rosacea and elephantiasis (of the nose): some similarities. 2. 17-18th centuries: Gutta rosacea precedes hypertrophy (tubercle) of the nose: beginning of a clear relation. 3. First part 19th century: Acne rosacea replaces gutta rosacea and definitively includes hypertrophy of the nose in later stage. 4. Second part of 19th century: Controversies around acne rosacea and introduction of the term rhinophyma.

Conclusion: By the profusion of different appellations, sometimes leading to confusion, this study demonstrates the difficulty that the medical world had to first understand and then to definitively name this disfiguring nasal pathology.

Descriptive term derived from Greek *rhis*/nose and *phyma*/growth, rhinophyma is considered as “the most common cause of phymatous rosacea, a severe facial condition with sebaceous hyperplasia, seen most often in men, involving the lower half of the nose

and sometimes the adjacent cheek areas.”⁽¹⁾ In other words, it represents a “florid overgrowth and hypertrophy of the tip of the nose, often with hypervascularity and nodularity, that is associated in the popular mind with the abuse of alcohol. An invalid association, it has nevertheless been a persistent one.”⁽²⁾ (*Figure 1, p.266*) The word rhinophyma is mentioned for the first time in 1869 by Ferdinand von Hebra⁽³⁾. It took more than half a century to become the official and definitive appellation. Rhinophyma is thus a disfiguring pathology limited to the nose but belonging to a disease of the face, named rosacea, which is defined as “a chronic skin disease, usually involving the middle third of the face, characterized by persistent erythema and often by telangiectasia with acute episodes of edema, papules, and pustules [...] It is associated with an excess of cathelicidin and stratum corneum tryptic enzyme, which results in the formation of an abnormal inflammatory peptide that is responsible for the lesions. Complications include rosacea keratitis and rhinophyma.”⁽¹⁾ (*Figure 2, p.267*) In 2002, the National Rosacea Society Expert Committee

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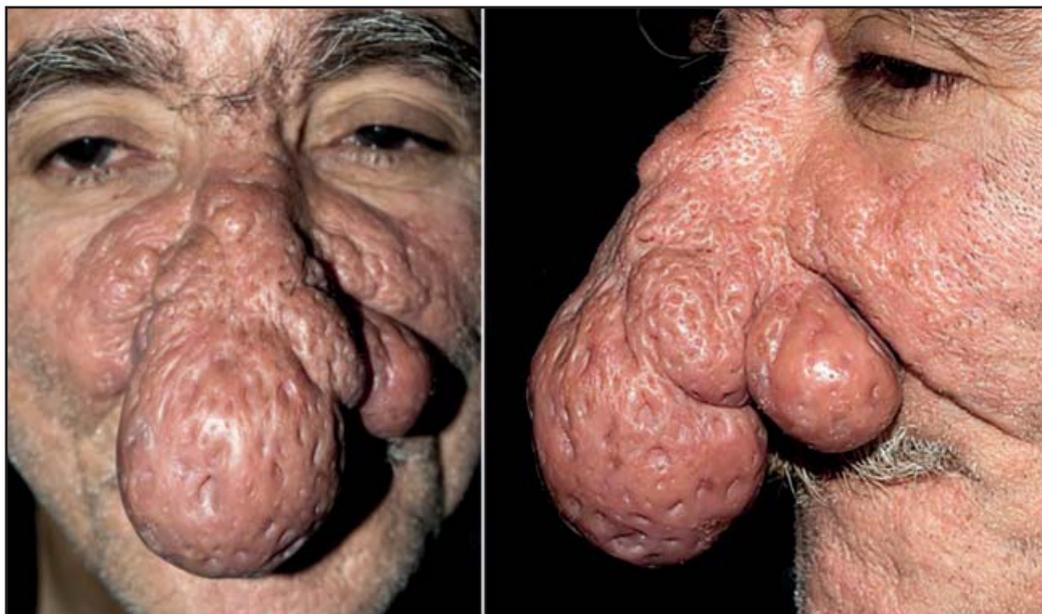


Figure 1. Rhinophyma (Dr Harout collection, sciencephoto.com)

on Classification and Staging of Rosacea clarified the definitions and identified four subtypes of rosacea⁽⁴⁾: erythematotelangiectatic (the red nose), papulopustular (the classical form of rosacea), phymatous, rhinophyma being the most common presentation, and ocular.

Confronted with its particular visual aspect, rhinophyma was the subject of many historical publications, mainly dealing with its representation in art (Figure 3, p.267) and literature⁽⁵⁻⁹⁾, often caricatural, the medical description being usually left on the side. The most complete one, which listed 119 paintings and engravings, being published in 1988⁽¹⁰⁾. Rosacea also found a particular place⁽¹¹⁻¹³⁾. The aim of the present study is to look back over the chronological medical description of this nasal disfigurement up until its definitive acceptance as rhinophyma in the second part of the 19th century. It refers only to original texts and documents, and focusses on its description in medical writings. It is conducted through a compilation of the main books and articles related to this topic. Limitations are associated with the impossibility of being sure to have access to all texts. The main difficulties were related first to the fact that it was described under a variety of conditions sometimes not clearly limited to the nose and face, some of which, in the present day, being difficult to precisely identify with

the definition of rhinophyma; secondly with the acceptation of its relation to a specific disease of the face; and thirdly with the profusion and confusion of medical and non-medical terms in various writings.

Face redness and swelling, pustules, leprosy, gutta rosacea and elephantiasis (of the nose): some similarities

Disfigurement of the nose was associated in Antiquity with tumorous proliferation or related to leprosy – “livid and black dents on the face” – sometimes named *satyriasis*, *leontiasis* or even elephantiasis⁽¹⁴⁾. The term elephantiasis is ambiguous, implying both filariasis and leprosy⁽¹⁵⁾. In the 11th century, Avicenna was one of the first to clearly describe face redness under the name of “*albedsane*” and its similarity to leprosy: It “is an external redness similar to the redness of the one in whom leprosy begins. It appears on his face and on the extremities and especially in the winter and with the cold. It may happen that there are ulcers with it.”⁽¹⁶⁾

In the 13th century, Gilbertus Anglicus described in the same chapter, nasal ulcers and pustules, “*noli me tangere* [do not tread on me – do not touch me – cease holding on to me – stop clinging to me]”, and “*gutta rosacea* [rosaceous drop]”⁽¹⁷⁾. “*Noli me tan-*



Figure 2. Acne rosacea, Willis, 1841 (Welcome images)



Figure 3. rhinophyma painting on stamp by Domenico Ghirlandajo (1448-1494)

gere is an ulcer of the nose. It is born of an abscess or a pustule badly treated. It happens from their acute humors, as the cancer lights up [sic!] easily from an acute material.” It is the Latin version of a phrase spoken by Jesus Christ to Mary Magdalena when she recognized him after his resurrection (John 20 :17). In 1676 “*noli me tangere*” was defined as a particular name of cancer “as in the face, nose, or lip”, a “small round acuminate tubercle, which has not much pain, unless it be touched or rubbed, or otherwise exasperated by topics.”⁽¹⁸⁻²⁰⁾ Concerning *gutta rosacea*, one of the first known mentions of this term, Gilbertus Anglicus wrote: “*gutta*

rosacea is an infection of the nose or parts that are adjacent to it from a red humor. In fact it occurs from light red blood or from choleric blood carried there because of the excessive weakness of the place itself or because of its resemblance. In fact the choleric or sanguine face receives the infection more quickly by the effect of resemblance. It is called *gutta rosacea* because of the clarity of the clear humors released shortly before, that impregnate these parts in the manner of a rose [...] It is not affected in depth although it is a leprosy such as this skin. Hence it deserved to have the name of *gutta*.”⁽¹⁷⁾

In a chapter dealing with “red, black or white or livid pustules or of this kind appearing on the nose or above the nose or around the nose, and swelling with redness appearing all over the face, which is called *aurea cervina* [gold deer] or *buzicaga* [from *butiga*, synonymous of general swelling of the face and of rose drop]”⁽²¹⁾, William of Saliceto explained that this disease is named “*saphati* [the second month of Muslim year], and belongs to the signs which denote leprosy and which precede it.”⁽²²⁾ Further on, he added that “general swelling of whole face”, is also commonly named “*gutta rubea* [red drop].” Ferdinand von Hebra gives another origin to the words “*buzicagua* [sic!]”, this name is equivalent to wine-cask, being derived from *cagua*, Cahors, a wine of Bordeaux, and *buza*, a cash, and “*aura cervina* [sic!]”, which means a pack of wine-skins, the word *aura* being the same as *averta*, a saddle-bag, and *cervina* being an abbreviation of *cella vinaria*⁽²³⁾. As a supposed relation with abuse of alcohol was not yet suggested in that time, this interpretation by Ferdinand von Hebra is questionable.

In the 14th century, Guy de Chauliac discussed “*gutta rosacea* and pustules which took place in the face”⁽²⁴⁾. For him, “*gutta rosacea* is a strange redness, similar to the redness by which leprosy begins. Most of the time, it appears on the face, and especially on the nose.” More than a century later, Giovanni Manardi associated *gutta rosea* [rose drop] and elephantiasis: “An affection of the face, and in particular a redness of the nose, which usually precedes elephantiasis, is called *gutta rosea*.”⁽²⁵⁾ To Jean Fernel is posthumously attributed the separation of *gutta rosacea* into two forms: simplex and solitary – with pustules⁽²⁶⁾.

Since late Middle Age, redness with more or less swelling, and/or pustules of the face was thus described and named with the Latin words *gutta rosea*, *gutta rubea* and *gutta rosacea*, the last remaining the usual term until the first part of the 19th century. A relation was accepted between *gutta rosacea*, and the first stage of leprosy. *Gutta rosacea* is thus an established affection. No medical description of a rhinophyma was found during this period.

Gutta rosacea precedes hypertrophy (tubercle) of the nose: beginning of a clear relation

In the first part of the 17th century, Daniel Sennert is probably the first to clearly describe a rhinophyma under *gutta rosacea*: “Sometimes this tubercle undergoes such an increase that the face is deformed and horrible and that the nose increases much [...] Not far from Dresden lived a man suffering from this evil whose nose grew so much that it prevented him from reading.”⁽²⁷⁾ Another such observation of a “size and prodigious exuberance of the nostrils” is made by Theophile Bonet: “A Bologna merchant [...] felt ten years ago a gnawing pain in the face and throbbing, which after having traveled all over, stopped at last in the nostrils and around the eyes gradually swelled, so that they assumed the form and size of a grenade.”⁽²⁸⁾

At the turn of the 18th century, *gutta rosacea* was almost no longer associated with leprosy, and described in medical dictionaries with its final form of hypertrophy of the nose such as “a disease which comes to the nose, to the cheeks, and often throughout the face, either with tumor or without tumor, and sometimes with crusts and pustules.”⁽²⁹⁾ Or “*gutta rosacea*, a redness with pimples, wherewith the cheeks, nose, and whole face is deformed, as if it were sprinkled with red drops; these pimples or wheals often increase, so that they render the face rough and horrid, and the nose monstrously big.”⁽³⁰⁾ Richard Boulton explained that “this disease happens commonly to those that not only inflame their blood by drink, but also by disordering the natural ferment of the stomach.”⁽³¹⁾ Daniel Turner enlarged the vocabulary to describe “*gutta rosea* or *rosacea*, from the little red drops as it were or fiery tubercles sprinkled up and down the face and nose; by some, *rubedo maculosa* [macular redness], or rather *rubor cum maculis* [redness with macules], by which the parts of the face are sometimes so overgrown as to render the whole countenance horribly frightful.”⁽³²⁻³³⁾

In the mid-18th century, Civadier described and illustrated two cases of surgical removal, “amputation”, of “many carcinomatous tumors situated on the nose and in the area” (*Figure 4, 269*)⁽³⁴⁾. At the same time ap-

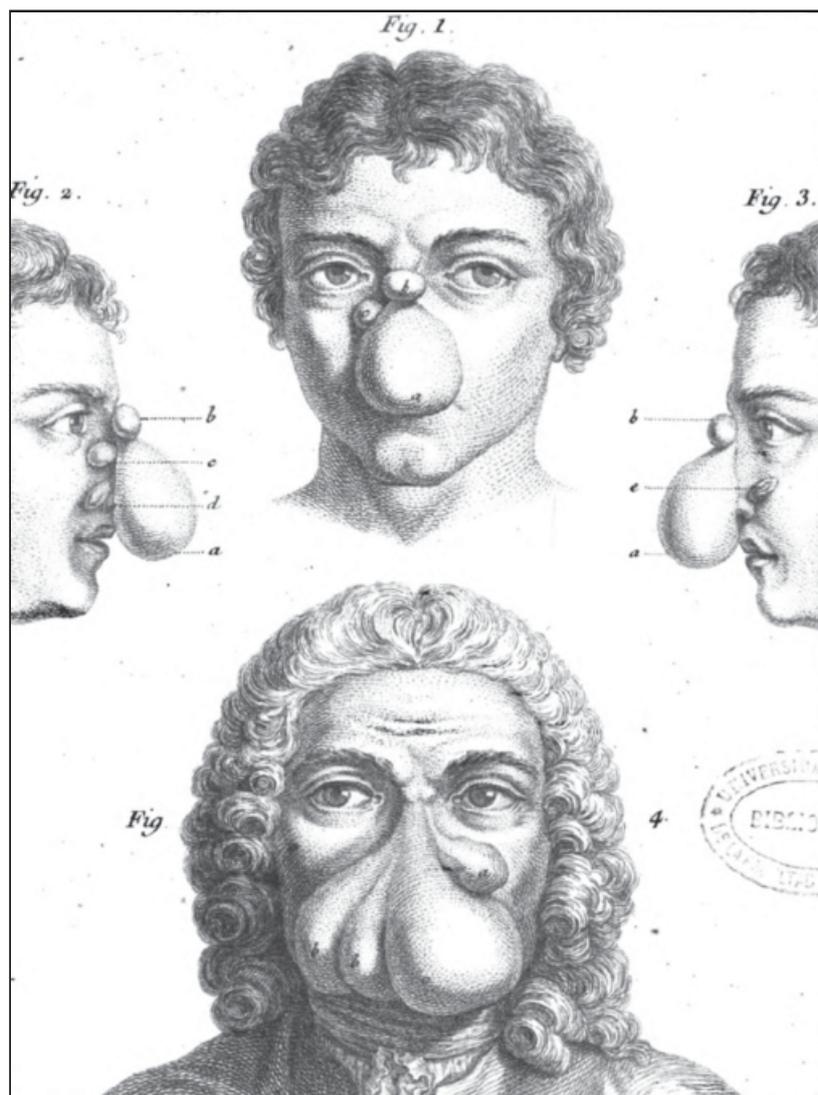


Figure 4. rhinophyma, 1757 Civadier's drawing

peared the first classifications of diseases. François Boissier de Sauvages, listed six different *gutta rosacea*: simple redness (*couperose / cuperosa*) – spontaneous maculous – spontaneous pustulous – of the nose, “*gutta rosacea nasi (nez bourgeonné [budded nose])*” – erysipelalous – of child⁽³⁵⁾. A few years later, he described four types of *gutta rosacea*: simplex – herpetic – syphilitic – and febrile⁽³⁶⁾. *Gutta rosacea simplex* or hepatic spots, are “rugged spots, eminent, red, confluent, which come most often in the face [...] they often form tubercles on the nose of drunkards.” Jean Astruc described six different *gutta rosacea* or *gutta rosea*: simplex – varicous – squamous – tubercled – ulcerated – and chancrous. He added that the “chancrous

gutta rosea, accompanied by hardness, where one feels stitches, and which threaten to degenerate into cancer of the skin, which is called *noli me tangere*.”⁽³⁷⁻³⁸⁾ Anne Charles Lorry discussed “*rubor et tumoribus in cutenarium [redness and tumors in nose skin]*”: “If no inflammation develops, if only humor congestion occurs, if the latter increases gradually, then agglomerated tumors disfigure the nose and give misshapen appendages [...] but often it is not a single appendix that disfigures the nose.”⁽³⁹⁾ Finally Joseph Jakob Plenck described nine types of *gutta rosacea*, one being “*gutta rosacea bachialis [rosaceous drop of Bacchus]*”: “It forms red spots, a little high and squamous, it is common among wine drinkers, it makes the nose tuberos.

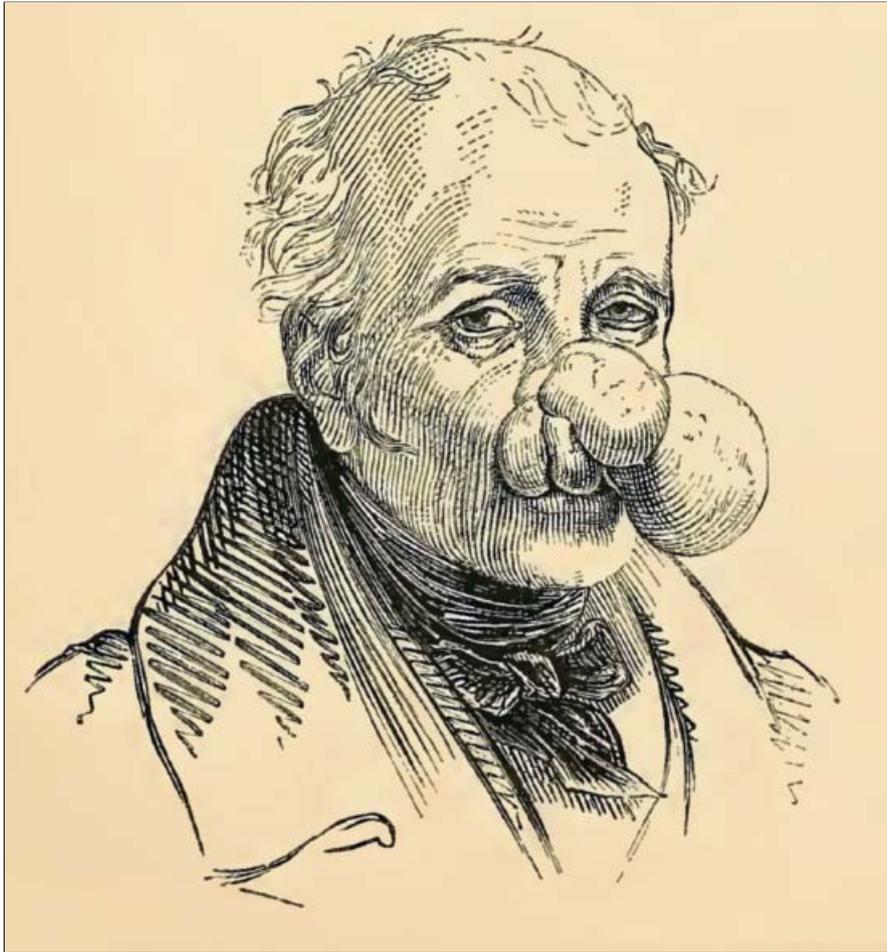


Figure 5. rhinophyma, 1837 Liston's drawing

This disease sometimes attacks the arms, neck and chest, and sometimes water drinkers.”⁽⁴⁰⁾

The second part of the 18th century saw many writings dealing with *gutta rosacea*, its classification into different types, and its possible evolution to hypertrophy of the nose and disfigurement of the face. A profusion of words were used to describe it. Nevertheless the association between *gutta rosacea* and rhinophyma is clearly established.

Acne rosacea replaces *gutta rosacea* and definitively includes hypertrophy of the nose in later stage

At the beginning of the 19th century, Robert Willan and Thomas Bateman replaced the term *gutta rosacea* by “acne rosacea”, and

explained that “this species of acne seldom occurs in early life [...] In general it does not appear before the age of forty; but it may be produced in any person by the constant immoderate use of wine and spirituous liquors [...] The nose especially becomes tumid, and of a fiery red colour; and in advanced life, it sometimes enlarges to an enormous size, the nostrils being distended and patulous, or the alae fissured, as it were, and divided into several separate lobes.”⁽⁴¹⁾ More and more observations of rhinophyma are published, for instance: “Such was precisely a celebrated drinker of the boulevards, which we saw died at the hospital of Saint-Louis: his pimped nose was also bristling and surmounted by several fleshy excrescences, most of which were provided with a pedicle, and hung like the fruit of a tree [...] The pustular buds of the cuperosa were entirely distinct from these horrible tumors, since the latter were scattered; but they appeared to be the chief



Figure 6. rhinophyma, 1869 Hebra's colored drawing

cause.”⁽⁴²⁾ Other examples are : “Several points, especially around the wings of the nose, appear more or less considerable, rough, livid, which present a disgusting deformity”⁽⁴³⁾, or “In more rare cases, cuperosa does not extend beyond the alae of the nose, on which are elevated rugous livid tumours. All the elementary tissues of this organ swell, so as to give it double or triple the dimensions which it usually has.”⁽⁴⁴⁻⁴⁵⁾

Even if the description of this entity became more and more precise and the term *acne rosacea* accepted by many professionals such as Robert Thomas⁽⁴⁶⁾, Alphée Cazenave⁽⁴⁷⁾, or Gustav Simon⁽⁴⁸⁾, its denomination remained a subject of debate. Jean-Louis Alibert named it *cuperosa* and classified it as “one of the most common varieties of pustulous dry patch [*dartre pustuleuse*]”⁽⁴⁹⁾. Gregor Brender mentioned “*acne senilis* [senile acne]”⁽⁵⁰⁾, Robert Liston depicted “lipomatous enlargements of the integuments cover-

ing the cartilage of the apex and alae of the nose, though sometimes presenting a very formidable appearance”⁽⁵¹⁾ (Figure 5, p.270), Alphonse Devergie described “*tuberculous cuperosa* [*couperose tuberculeuse*]” appearing “at the tip of the nose, it can become the seat of fleshy productions, rough on their surface, as tuberculous, and living enough of a very special life to pediculate and finally even to detach almost entirely.”⁽⁵²⁾ Sometimes, it is even considered as tumoral such as by Adolf Wernher which mentioned “elephantiasis of the nose, sarcoma”⁽⁵³⁾.

In 1851 numerous synonyms were listed for *acne rosacea*: *gutta rosea*, *gutta rosacea*, *ionthus corymbifer*, *crusta serpigiosa*, *crusta pruriginosa*, *roseola acnosa*, *thylaciitis*, *Bacchia*, *butiga*, carbuncled face, rosy drop or whelk, copper-nose, bottle-nose, grog-blossoms, and grog-roses⁽⁵⁴⁾.



Figure 7. 1870 wax moulages of acne hypertrophica and rhinophyma (Musée des moulages de l'Hôpital Saint-Louis, Paris)



Figure 8. 1894 wax moulage of a rhinophyma, Paris (pictame.com, medical models)

Controversies around acne rosacea and introduction of the term rhinophyma

Use of the term acne rosacea for this entity progressively began to be controversial⁽⁵⁵⁾, notably by the improper use and association of the term acne with rosacea⁽⁵⁶⁾, leading to difficulties to decide what is and what is not acne⁽⁵⁷⁻⁵⁹⁾. In the mid-19th century, acne originating from sebaceous glands was pro-

gressively separated from rosacea into two different entities, rosacea being a disease of the blood vessels⁽⁵²⁾. Ferdinand von Hebra was one of the first to explain that this entity has nothing to do with acne, even if in 1845, he described it under the name of acne rosacea⁽⁶⁰⁾. He stated that acne rosacea, instead of arising in an inflammatory process, in fact consisted in the formation of new vascular and connective tissues, and therefore,

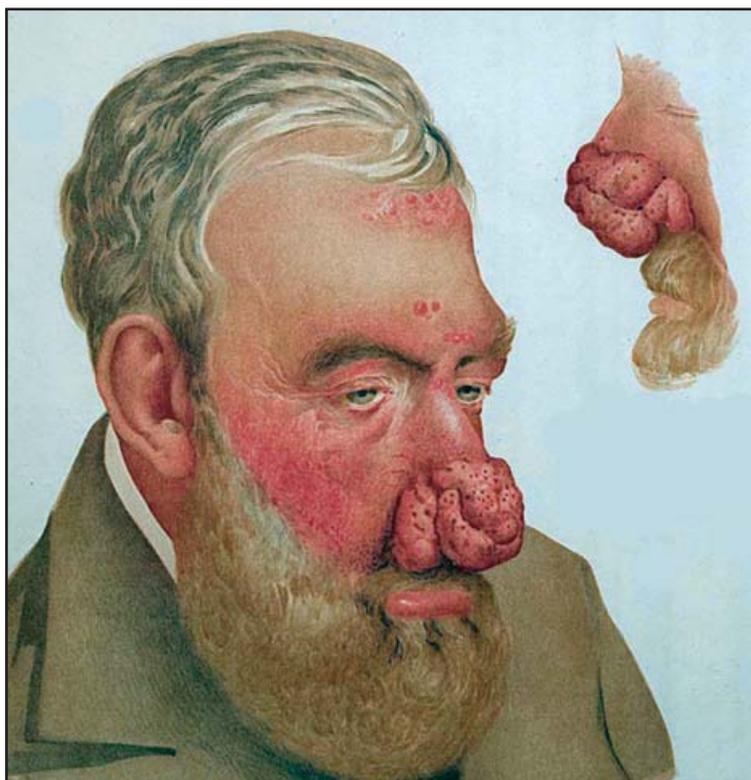


Figure 9. 1893 acne rosacea in Crocker's atlas of skin diseases

that although it was often associated with *acne dissiminata* (disseminate acne), it ought properly to be classed among new growths.

A few years later, in 1869 (and not in 1856 as usually mentioned), Ferdinand von Hebra mentioned for the first time the term rhinophyma for “pound nose [*Pfund-Nase*]” to describe the later evolution of acne rosacea, where “the nose, without any increase in its breadth, will be elongated until it projects beyond the lips, and even down to the chin, – reminding one of the turkey; while in other instances the organ will expand in every direction, until it attains the size of two fists” (*Figure 6, p.271*)⁽³⁾. He had already written: “I am, nevertheless, convinced that these two so called species of acne are entirely distinct diseases.”⁽⁶¹⁻⁶²⁾ Ferdinand von Hebra posthumously completed his description in 1881: “With the name rhinophyma, we consider a neoplasm of the nose, which causes a substantial intumescence of the same. The thickening rarely occurs uniformly at all points, but usually uneven, whereby a lobed, bony surface develops. These lobes some-

times have a broad base; in other cases, they are stalked, which gives them a certain lability and shiver with every movement of the head. Depending on whether these lobes develop laterally or at the tip of more powerful, the nose gets a bigger width or length. In the former case, it may become so broad that the lid-gap is partially covered by it, and in the second, so long that it passes down above the upper lip. The quantity and size of the lobes are greatly varied.”⁽⁶³⁾

At the same time, Erasmus Wilson demonstrated that acne rosacea was an improper term to describe this entity: “*gutta rosacea* has heretofore been confounded with acne, under the name of acne rosacea; we shall endeavor to show that the two diseases are essentially different. *Gutta rosacea* is the red and pimply face of the mid-period of life, a disease of inflammatory congestion, and depending on constitutional causes; acne is a disorder of secretion, of nutrition, of growth, and an accompaniment of youth and the development of the cutaneous tissues.”⁽⁶⁴⁾ In 1872, Louis Duhring used the term rhino-

phyma in the description of a case of “rosacea – acne rosacea – gutta rosea – rhinophyma”⁽⁶⁵⁾. Progressively rhinophyma became the accepted word for this hypertrophy of the nose (Figures 7 and 8, p.272). In 1876 Henry Granger Piffard named acne rosacea simply rosacea because acne rosacea was “not philosophical, under the definition of acne” ; its final disfiguring form being “hypertrophic rosacea”⁽⁶⁶⁾. Rosacea becomes, progressively, the reference name of this disease (Figure 9, p.273).

Historical perspective

By the profusion of different appellations, sometimes leading to confusion, this study demonstrates the difficulty that the medical world had first to understand and then to definitively name this disfiguring nasal pathology. It is probably why there are very few articles interested specifically in the medical description of rhinophyma. A 1961 paper lists more than 30 different names most of them used in the 19th and 20th centuries⁽⁶⁷⁾. Rhinophyma, was, is and remains an object of observation.

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