Weir (R. F.)

ICHTHYOSIS

OF THE

TONGUE AND VULVA.

With the Compliments

of

the Author.

BY

ROBERT F. WEIR, M. D.,

SURGEON TO ROOSEVELT HOSPITAL, ETC.

[*REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, MARCH*, 1875.]

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ICHTHYOSIS OF THE TONGUE AND VULVA.[1]

Ichthyosis of the tongue was first clearly brought to the attention of the profession in 1861, by Mr. James Hulke, of the Middlesex Hospital, London, in a short description published in the *Medical Times and Gazette*, for November of that year, and subsequently before the Royal Medical and Chirurgical Society, in February, 1865,[2] he narrated the case more at length. It was as follows: "A man aged sixty-one, who never had had syphilis, and was perfectly healthy, presented himself, with a circular, mushroom-like wart on the dorsum of the tongue, to the left of the median line. This was three-quarters of an inch in diameter, having a slightly constricted base, and a surface dotted over with red papillæ. The mucous membrane around this wart was perfectly natural, but at a short distance from this, and on the same side of the tongue, near its apex, the normal mucous membrane was replaced by an opaque, yellowish-white patch, resembling sodden kid-leather. It was quite insensible to the touch, was a line and a half in thickness, and the man stated that he was in the habit of paring it down with a razor when it was inconveniently thick. Mr. Hulke cut off the wart and a portion of this leathery patch. Under the microscope, the wart was composed of colossal papillæ, and the leather-like patch, entirely of epithelium, the deepest cells of which were transparent and natural; the superficial ones, granular and opaque, and, on the free surface, felted into dense, opaque masses."

[1] Read before the New York Academy of Medicine, January 21, 1875.

[2] *Medical Times and Gazette*, March 11, 1865.

The attention thus aroused was much enhanced at the same meeting, by the statement made by Paget, concerning the development of a case of the same disease, of ten or twelve years' duration, into epithelioma, after the patient had been under his observation for about a month. Hulke reported a second case, his first, however, that had resulted in epithelioma, in October, 1868, before the Clinical Society of London.[1] It occurred in an athletic fireman, forty-three years of age, upon the middle of whose tongue, on its upper surface, was an oblong, yellowish-white, leathery patch about a line and a half thick at its centre, but thinner toward the left side of the tongue, where it was not unlike the thinnest kid-leather. A little behind the left corner of this patch was a more prominent round spot, of the same kind, about one-half a line broad. The patches were accurately circumscribed, the underlying muscular tissue was not indurated, and no enlarged glands were perceptible. He said that, twelve or fourteen years ago, the skin on the back of his tongue began to thicken, and a raised patch was formed there, which slowly grew thicker and larger, until it became so inconvenient that he frequently shaved it down with a razor. He denied syphilis, and no traces of it could be found. The smaller patch was cut off, and the wound healed quickly. It was found to consist of the natural elements of the mucous membrane, greatly hypertrophied. The papillæ and their epithelial sheaths were both involved. He was seen three years later, and further portions removed. Three and a half years after, he returned with an ulcerating epithelioma on the tongue, near the tip. The tongue was removed.

In commenting on this case, he says: "This affection of the tongue, to which the name ichthyosis is provisionally given, consists essentially in hypertrophy of the epithelial and papillary elements of the glossal mucous membrane, corresponding to that which, in the skin, dermatologists have long known by the same name. It is characterized by tough, white, raised patches on the surface of the tongue; their color is not unlike that of a fine film of boiled white of egg, or wet kid-leather, and they are clinically distinguishable from syphi-

[1] "Clinical Society Reports," vol. ii.

litic condylomata by their thick epithelium, and by their wide superficial extent; and from syphilitic nodes and cancerous tumors, by their restriction to the mucosa, by their exact circumscription, by the natural softness of the underlying muscular tissue (showing the absence of infiltration), and by the absence of ulceration and of infection of the lymphatics."

So strongly was he impressed with this development of ichthyosis of the tongue, that in 1873, in a lecture on the "Conditioning Circumstances attending the Evolution of Cancer,"[1] he gives it as one of the causes of cancer, citing another case, of John C., aged fifty, admitted into Middlesex Hospital with a central, trough-like ulcer on the upper surface of the left half of the tongue, with ragged and indurated edges. On the other half of the tongue were seen several tough, whitish and buff-colored patches, slightly elevated, and surrounded by healthy and supple mucous membrane. The patient had had these patches many years. Microscopically these patches were found to be outgrowths of the epithelial and papillary tissues. In addition to this case, and the one given above, he had seen three others, terminating similarly, which, with Paget's, made then a total of six cases, in which chronic, simple *plaques* were the precursors of epithelioma.

Chronologically, however, the history of this condition of the tongue can be traced farther back, for in a work entitled "A Practical Treatise on Diseases of the Skin," by Samuel Plumbe, published in London, in 1837, the author mentions that he has observed an abnormal development of the papillæ of the tongue in a man in good health, which he regarded as precisely similar in its nature to local ichthyosis of the skin.

In 1858, Buzenet, in a thesis on chancre of the mouth, described the white patches that occurred in the mouths of smokers, which he called *plaques des fumeurs*, and considered them to be due to the effects of the hot smoke and irritating juices derived from the pipe; but Saison, another French observer, in a paper on syphilis of the tongue, spoke of these, but considered them entirely distinct from the *psoriasis buccal*, which was another name for ichthyosis linguæ.

The most important of the early notes of this disease was

[1] *Medical Times and Gazette*, February 8, 1873.

given by Dr. J. Moore Neligan, in the *Dublin Quarterly*, August, 1862, in connection with the life insurance of a patient who presented himself to him with his tongue and cheeks covered with a thick, white skin, like a kid-glove, and uneven on the surface. It had lasted thirty years, and he had suffered no incovenience from it. The roof of the mouth, palate, and throat, were free. The tongue was perfectly clean; that is to say, there was no fur on it, nothing that could be removed by scraping or washing. It was of a dead-white color, resembling rather the appearance of the tongue in a boiled calf's head, than a kid-glove, the lustre of which it wanted. The patient attributed it to the use of a short pipe. Neligan had never seen this condition before, and advised that an extra premium should be charged to cover the risk, as he stated in his report, of its resulting in cancer. He gave no name to the disease. The patient developed epithelioma four years afterward.

In 1868, McCall Anderson reported a case of psoriasis syphilitica of the tongue.[1] This also terminated in epithelioma.

It was in this year also that the name *psoriasis buccal* was introduced by Bazin,[2] who described the affection in his work on "Arthritic and Dartrous Cutaneous Affections." This name has since been adhered to by the French school.

The causation of this disease was still further extended by Fairlie Clarke, who gave, in his work on "Diseases of the Tongue," in 1873,[3] an account of its following syphilitic ulceration of the tongue, which had been superficially ulcerated, and had healed under the combined use of internal and local remedies. Wherever the latter, such as caustic, had been freely applied by the patient and the surgeons who attended him, there were permanently-formed spots of a thin coating, not unlike the rough side of white kid-leather. In some places it was thicker than in others, and it had quite a corny (*sic*) prominence and hardness. He also speaks of several other

[1] *Glasgow Medical Journal*, March, 1868.

[2] "Leçons sur les affections arthritiques et dartreuses," second edition, 1868.

[3] Also in *Lancet*, May 11, 1872.

cases, non-syphilitic. Further on it will be found that not unfrequently ichthyosis was met with in syphilitics, who had at some previous time lesions of the tongue.

In France, in 1873, Charles Mauriac contributed to the *Union Médicale* of 1873–'74 a series of lectures on the subject of *psoriasis buccal*, giving four cases, afterward augmented to nine, when his paper was issued in pamphlet form, in 1875. It is worthy of note that one of his cases was syphilitic, and cured by anti-syphilitic remedies. This is to be borne in mind in connection with Fairlie Clarke's case, and especially with one of the original cases herein reported (Keyes).

Finally, in the *Archives Générale de Médecine* for April and May, 1874, Debove issued an excellent memoir on the subject, giving twenty-four additional cases, some of which will be alluded to hereafter.

These cases, with those presented by H. Morris,[1] three in number, and all terminating in epithelioma, and including those narrated by the gentleman partaking in the resulting discussions in the various societies before whom the papers were read, constitute a total of fifty-eight cases, more or less complete, now before us for consideration.

I have not included in this figure the sixteen cases reported by Fairlie Clarke, in an article read before the Medical and Surgical Society, in March, 1874,[2] for no details are given of them; they are consequently useless, at present, for statistical purposes.

To these fifty-eight cases can now be added the cases that have either come under my own observation, or have been kindly furnished me by my professional friends.

They are ten in number—two in women—and in one of these the vulva was affected, the first case, as far as I know, that has been observed:

Case I.—A gentleman, aged forty-one, of good health, but occasionally dyspeptic, who had never used tobacco, nor had syphilis, consulted me August 6, 1874, for an affection of the tongue, which had lasted about eighteen months, and which gave him no inconvenience whatever. On inspection,

[1] *British Medical Journal*, February 21, 1874.
[2] *Medical Times and Gazette*, March 21, 1874.

the tongue showed on each side, well back on the dorsum, and stretching inward from the edges to the distance of half an inch, a pearly-white patch, each a little over an inch long; they were irregular in outline, mottled, being apparently thicker in spots than in others, and very slightly raised above the surrounding healthy mucous membrane. They were somewhat less sensitive than normal, and, on being pinched between the fingers, felt like softened parchment. There was another small patch a quarter of an inch in diameter, on the tip of the left half of the tongue, possessing similar characteristics. There was no glandular enlargement. Has never had any skin-disease, and is only annoyed by seeing them.

He was put on arsenic, with but little hope of its effecting good. He was, however, seen within the past three days, with a view of obtaining a photograph of the disease to accompany this paper, when it was found that the patches had evidently much thinned, and in spots the red papillæ could be seen shining through. He informed me, however, that they, prior to treatment, would sensibly alter from time to time.

Case II.—A man, aged fifty, who was admitted to St. Luke's Hospital, June 25, 1872, with a warty, tuberose condition of the tongue, involving its dorsal portion, and stretching from the tip to near the circumvallate papillæ, and transversely to within a quarter of an inch of the edge on each side. It bled readily, and, in brief, on section of one of the irregular masses, it was found, microscopically, to present the characters of epithelioma. He stated that seven years ago he had noticed, for several months, a small white patch, distinctly circumscribed, on the right side of the tongue, near the apex, and close to where his pipe rested when smoking. An ulcer subsequently formed there, and, as he had had syphilis, he was put upon specific treatment. Not being relieved, he underwent an operation for its removal, in one of the London hospitals, about three years since. It reappeared one year after, and slowly assumed its present aspect. The mass was removed, subsequently, by the use of scissors, etc., the galvano-cautery having failed in its application. The patient, I would remark, died shortly after from an abscess of the lung —from the inhalation of blood at the time of the operation.

Case III. possesses unusual interest, as it is thought to be the only case yet reported of the disease attacking the vulva. It occurred in a single woman, of gaunt, spare habit, aged sixty-one, who was admitted to St. Luke's Hospital during my term of service in 1869, with the history of intense pruritus vulvæ running back for many years. She stated that she had had the latter since the age of sixteen; that many things had been tried and failed; that to obtain relief she had used opiates, at first in moderate quantities, but now requiring ten to twelve grains of morphine daily to quiet her. So severe had been her sufferings, that she underwent an operation for the removal by excision and galvano-cauterization of the mucous membrane, covering the labia minora, with but moderate temporary benefit.

On examination, the vulva was found to be extremely sensitive; vaginismus was also encountered, but forced introduction of the speculum showed the parts beyond healthy, the uterus being the subject of senile atrophy. Starting from the fourchette, and running upward, nearly covering each labia minora, and merging insensibly into the normal mucous membrane, was a long, irregular patch of a pearly-blue color, covered by a tenacious secretion of the same color which could be partly wiped off, showing thin, minute islands, some circular, some irregular in shape, through which the reddened subjacent tissue was seen. The adjacent labia majora were also slightly involved. These opaque patches, or rather patch (for it was all one), were appreciably thickened, and very sensitive to the touch. The follicles of the vulva were in many places enlarged and prominent. A variety of local applications were tried without avail, and she left the hospital, to return in 1870, within eighteen months, with well-marked epithelioma of the vulva, which part was afterward removed *en masse* by Dr. Gurdon Buck.

While it is acknowledged that the diagnosis of ichthyosis is made retrospectively, yet its characters are now so plain that I feel justified in recording it here.

At the time of the first operation, which was performed at the clinic of the College of Physicians and Surgeons of this city, Dr. Thomas observed a thick, cheesy, cream-colored cov-

cring of the labia minora which could not be entirely removed by wiping or scraping. The odor was offensive. The vulva was not swollen, though studded over by prominent follicles. Dr. Thomas pronounced it follicular vulvitis, but considered it unique and was not astonished to learn of its subsequent development into epithelioma. The early history of the case is to be found in the *American Journal of Obstetrics* for May, 1869.

I am indebted for Cases IV., V., and VI., to Dr. E. L. Keyes, of this city.

Case IV. was one of ichthyosis occurring during the outbreak of syphilis, apparently due to this disease, and cured by specific treatment. Its rarity renders it extremely interesting.

It was of a man, seen in 1873, aged twenty-one, unmarried and a syphilitic, the central lesion being a small papular unindurated chancre followed by light roseola. Treatment was much neglected by the patient; he had shortly after sore-throat, numerous patches, etc. One year after the roseola a scaly syphilide appeared, which was generally distributed over the body, and for which he was duly treated, causing the subsidence of the eruption. But during this time he became very cachectic, and, while thus, the whole dorsum of the tongue became elevated, of a yellowish, mother-of-pearl white color; mottled deeper in rounded spots, thickened, dry, and without ulceration.

At the edges the epithelium grew out in triangular masses between the teeth, where less pressure occurred. When these masses were caught up by the forceps, they escaped with a cartilaginous sensation. No mucous patch or sore-throat was present.

The tongue was restored to its normal condition and has since remained so, by the addition to the treatment of local fumigations of calomel; that is, directed on the tongue as well as inhaled.

Case V. occurred in a man aged forty-five, who in 1874 was seen for another disorder, but showed as a curiosity, as it gave him no annoyance, a white patch about three-fourths of an inch long by one-fourth wide, on the floor of the mouth in

the region of the frænum, and which was brought into view by strongly raising up the tongue. It was of a brilliant white color like white paint, with slightly irregular outline. It was about one millimetre in thickness, painless, somewhat mammillated, and the adjacent and subjacent tissues were perfectly natural and soft.

It had existed for several years. Dr. Keyes removed a piece of it, cutting into the subjacent tissues, which bled freely. Microscopically it was found to consist of an imbrication of the natural cells of the surface epithelium constituting a horny, compact layer; the individual cells were, however, more granular than usual. No nests of epithelium were to be seen.

Case VI. was seen by Dr. Keyes when in Paris at Hardy's clinic for skin-diseases, in a man sixty-five years of age, who was affected with general simple non-syphilitic psoriasis. A whitened strip about half an inch wide, and but slightly elevated, was seen crossing the dorsum of the tongue obliquely to its long axis. It was considered by Hardy as a part of the general eruption, and disappeared with it.

Case VII. was sent to me by Dr. Piffard, and illustrates that form known sometimes as the smoker's patch. A man of thirty-five, a smoker of cigars, and a syphilitic, had on the inner surface of both cheeks, just posterior to the labial commissure, a small, white mammillated patch, each about half an inch in diameter. They had existed for ten years, and were only sensitive when irritating substances came in contact with them.

Case VIII., presented by the kindness of Dr. F. R. Sturges.—A man, aged thirty years, consulted Dr. Sturges in 1870 relative to his eligibility for life insurance, showing his tongue, which was marked by a broad stripe extending from tip to base, about one inch and a quarter wide, but leaving the edge free. This was of a white color, glistening like a grayling's back or the belly of a fish just out of the water. On seeing it Dr. Sturges asked him if he had been touching his tongue with nitrate of silver. The patient stated that he had had it for ten years prior to contracting syphilis. No abnormal sensations were complained of.

Cases IX. and X., concluding the list, were courteously placed at my disposal by Dr. R. W. Taylor.

Case IX.—J. McP., aged thirty-nine, Scotch; never had syphilis; when twenty-three he had gonorrhœa; never had any cutaneous rash. In New Mexico he suffered from fever and ague. Being in the trading business, particularly of cattle, he was in the habit of smoking the whole day, without any intermission of length. He said that he smoked twenty or thirty cigars daily. He ate pungent condiments, and drank whiskey freely. Patient came under my observation August 4, 1874. Upon examination of his mouth, I found the following appearances: The tongue is very materially thickened in a vertical direction. Its dorsum is of a dirty pearl color. At the middle it is almost brown, and at the edges it is of a pearly tint. There are several deep furrows in the longitudinal direction, which are intersected by others more shallow, running transversely. By these the tongue is mapped out into about ten patches. When the organ is pushed out and drawn in, it is observed to be less supple and flexible than normal. At the extreme posterior portion upon which the circumvallate papillæ are seated, the mucous membrane is not very much altered, being only slightly thickened. An examination of one of the deeper furrows and of the quadrangular patches shows the mucous membrane to be thickened to fully four times its normal size. The surface is quite smooth, and the normal mammillation is lost. The finger does not experience roughness when passed over the tongue. If one attempts to take up a fold of the organ, which is quite large and broad, it is found that the mucous membrane is so firm that the action cannot be accomplished. With a pair of forceps the dense structure of the membrane is better determined, and such sensation of firmness is felt almost as if one were to pinch up the hide of a dressed pig, whose hairs are removed by scalding. The sensibility is much lowered, and manipulation with the forceps is well borne. If slightly scarified, one of the patches appears very tough, and it is with considerable effort that a very delicate thin bistoury goes through the membrane. In consequence of the rigid condition of the tongue, the fissures sometimes become ulcerated and give great pain.

It was for this condition and gastric disorder that he came to me. Upon the sides the tongue is very rough, there being vertical lines furrowed in its whole length. The mucous membrane here is not much thickened. Upon the under surface there are no abnormities of the membrane. The mucous membrane of the cheeks, particularly near the commissures, is very much thickened, and owing to pressure against the teeth there are vertical lines of tissue, which are somewhat elevated. These are permanent. The thickening is gradually lost about opposite the last molar tooth. My treatment was at first to ameliorate the rhagades of the tongue. Thus, they were gently touched with a solution of nitrate of silver (120 grains to the ounce), and the mouth was rinsed often during the day with a solution of borax and tincture of myrrh in water. The patient was, however, but a short time under observation.

Case X.—J. O'N., aged twenty-four; Irish; no history of venereal disease, family history not known. When fifteen years of age, the patient had an eruption of psoriasis, which was then mostly localized to the elbows and knees. Being in the army as waiter and soldier, he was not treated, and in the year following he had a more extensive and severe eruption. For several years his body was more or less covered with psoriatic patches. In 1869 he went in a sailing-vessel to Brazil, where he obtained employment as a laborer. His diet there was chiefly of vegetables, and he ate largely of fruit, especially of oranges. In three months, without any medication whatever, his eruption had vanished entirely, and he stated that his skin was without a blemish. Remaining in that country rather more than a year, he was free from psoriasis. Returning in the summer of 1870 to New York, he was well until the month of November, when he noticed a few scaly patches. This time the eruption increased with unusual rapidity, and when, in January, 1871, he came to me for treatment, he was really covered with thickened scaly patches. His whole scalp also was involved. He called my attention to the condition of his tongue. The filiform papillæ were very much enlarged, each one being strikingly prominent, and surrounded and capped with a considerable thickness of mucous membrane. The organ was as supple

as natural. The lesion seemed to be lost at the back part of the tongue. There was also a decidedly thickened state of the mucous membrane of the cheeks. The color of the tongue was of a pearly blue, while that of the cheeks was less pronounced. If scraped with a knife-blade, large quantities of epithelial scales were obtained. This is a distinct proof that the mucous surfaces may be involved by psoriasis, yet there are those who think this does not occur. Cured by arsenic.

Ichthyosis of the tongue presents itself in other forms. In some cases the patches are nummular, irregularly overriding each other, and in others detached and in flakes, more or less angular, like ichthyosis of the skin. Fissures and furrows are often met with, constituting frequently small ulcers, bleeding readily, and at times such excess of scales is formed that it can be scraped away in masses.

The patches may extend the whole length and breadth of the tongue, on its dorsum and edges, the inferior surface being but rarely affected; the lips, cheeks, gums, and vault of the palate, are likewise the seat of the affection, and in the order named, in frequency; but the fauces and the tongue beyond the circumvallate papillæ are not involved. Usually there is but little impairment of the function of the tongue, though in many instances, from the thickening and cracking, speech and mastication are interfered with. Ptyalism is sometimes met with. In fact, ichthyosis in its early stages causes, as a rule, so little trouble, that it is generally discovered by chance.

The microscopic examination of Hulke's first case showed, it will be recollected, the pearly patch to be composed entirely of cells of epithelium felted into a dense, opaque mass. The results obtained by Debove in two specimens from cases evidently more advanced were, that the epithelial layer was a little thickened, and that the chorion had a thickness four or five times its normal condition, a result due to the presence of dense connective tissue, there being a veritable sclerosis of the mucosa. There were also found a number of leucocytes. At the surface the lingual papillæ had a uniformly mammillated appearance, like the papillæ of the skin. In the deeper parts the fibrous tissue of the chorion penetrated between the su-

perficial muscular fibres of the tongue, compressing and atrophying them.

From these examinations he considers as essential that there should be: 1. A thickening of the epithelial layer; and, 2. Thickening and sclerosis of the chorion.

Fairlie Clarke[1] considered the pathological changes to consist of a chronic inflammation with overgrowth of the papillæ, with loss of power to throw off the effete epithelium, and says: "If a portion of the ichthyotic coating be examined under the microscope, some increase in the thickness of the epithelial layer is seen, some enlargement of the papillæ, and a great development of the *rete mucosum*. Around the bases of the papillæ, and in the submucous and muscular tissues, there is a very abundant nuclear cell-growth. There is also a notable increase in the number and size of the blood-vessels in all parts. When the disease reaches the stage of epithelial cancer, the most striking feature is the development of the rete. It increases enormously at the expense of the papillæ, reducing them, in many instances, to mere threads, and dipping down between them in the form of large, club-shaped processes. Toward the termination of some of these processes, the cells may be seen to have assumed a circular arrangementt forming the lamellated capsules or nests of cells that are so characteristic of epithelioma."

From these investigations and cases, considerable discussion has arisen concerning the proper title to be given to the disease, the term ichthyosis having been objected to as belonging to a congenital or early-acquired disease, which remains quiescent, and never advances toward malignancy. Clarke, who presents these objections, from the enlargement of the papillæ that he has seen, prefers the term papilloma; but, as that has already been assigned to a class of troubles of which warts are a type and growth, whose bases occupy but small area, he would adopt the term suggested by Ullmann, of tylosis, from the Greek τυλοσ, *tulos*—a callosity. Keratosis has also been suggested, by Tilbury Fox, and this seems to me to be the most satisfactory name to be used, being in accordance not only with Lebert's views, but also

[1] *Medical Times and Gazette*, March 21, 1874.

with Hebra's, who places keratosis as the genus, of which ichthyosis, papilloma, etc., are the species, so to speak.

In respect to the word psoriasis, Debove admits that he does not consider it identical with psoriasis of the skin, with which, indeed, it is rarely coincident, being found more commonly associated with limited eczemas, and that it is anatomically different, in that in psoriasis of the skin there are hyperæmia and infiltration of the papillæ, whereas in *psoriasis buccal* there is a sclerosis existing.

Clinically, he has never observed a psoriasis (ichthyosis) of the mucous membrane of the lips, to be continued upon the skin of the face as an ordinary psoriasis.

Another reason, and possessing more weight, is that advanced by Clarke,[1] that the name psoriasis belongs already to a class of cases differing from the one now under consideration. Psoriasis linguæ, he says, properly so called, exists when a patch of mucous membrane has become whitened by hyperæmia and exudation into the epithelial layer, and looks as if lightly penciled with nitrate of silver. This condition soon passes away, and in a few days the patch desquamates, the epithelial layers of the mucosa fall off, and a red, raw surface, studded with permanent papillæ, is left. In a short time the epithelium is reformed. This may again be repeated in the same place, or adjacent to it, and so on. It is a troublesome though not dangerous affection, is much more rare than tylosis (ichthyosis), but it is not an early form of that disease. It is found in middle-aged persons, and is usually, if not always, associated with syphilis.

In the grand total of sixty-eight cases, it was observed with interest, as bearing on the question of the cure of ichthyosis, that there were but six cases noted as occurring in women; that out of forty-three cases where the age was given, twenty-three occurred after the fortieth year, and but fourteen under that age; and that it had never been met with in children. Taking the former fact as to sex in connection with the statement that the majority of the males had been smokers, and many syphilitic, we probably have a clew, not fully proved, as to the origin of the disease. But too much stress

[1] *Practitioner*, August, 1874.

must not be laid upon this, as many had it who did not smoke, and not every one who smoked had it; and, in respect to syphilis, out of forty-three cases, seventeen had syphilis, but quite a number (six) had ichthyosis before contracting syphilis.

An interesting though solitary case is narrated by Debove, where a cook, who was smoking all the time except when asleep or at meals, had developed on the left side of the mouth, near the labial commissure, a patch of this disease, exactly where the heated stem of his short pipe rested. From a single case where ichthyosis existed, with a purulent inflammation of the middle ear, it was thought that irritation of the nervous supply of the tongue, in this case through the chorda tympani, and in other cases through the fifth pair, might be looked upon as a cause.

In addition to these causes, that is, smoking, the arthritic and psoriatic diathesis, and syphilis, remembering, in connection with this latter, that the previous specific lesion of the tongue may so impair its nutrition as to predispose that spot to ichthyosis (Kaposi calls it a "residuum" of syphilis),[1] it should be mentioned, as analogous to smoking, and acting as a local irritant, that the disease has been met with in glass-blowers, and is attributed, by Dr. Andrew Clarke, to their occupation.

The duration of ichthyosis of the tongue and buccal cavity has not yet been fully determined. In the collated cases where details have been given (forty-three in number), it was found that in eight cases the disease had existed more than ten years, and in three cases more than twenty years; and in one of these latter, after a duration of thirty-four years, epithelioma developed itself. In reference to the duration of the disease prior to its transition into cancer, I venture to offer the following merely as an approximate result. It is based upon the consideration of ten cases where this point has been mentioned; in one epithelioma showed itself after thirty-four years (just alluded to), two after twenty years, and in seven cases the disease so terminated, in periods ranging from six months to two years:

[1] "Syphilis der Haut," iii. Abth., where he gives seven plates, poorly representing this disease save in one instance (buccal).

Out of the sixty-eight cases, I find recorded thirty-one cases resulting in epithelioma, which transition occurred in some instances under the surgeon's own observation, so that the point of the conversion of a patch of ichthyosis into epithelioma can no longer be held in doubt, or rather be considered as not proved, as it was a short time since.

Not only does the malignancy of the disease show itself in the tongue, but ichthyosis affecting the mucous membrane of the cheeks and lips has each, in one instance, so terminated (Verneuil, Bassereau). Debove gives the uncomfortable opinion that the probabilities of such a conversion are equally great, whether the patch be large or small; it is of course more apt to occur in the tongue.

Is this result, however, to be expected in all the cases? The English authorities generally announce this as the customary ending to be expected, and hence base their treatment upon this opinion. Hulke states that he had tried all kinds of treatment without effect, and that in every instance epithelioma followed. He, with others, therefore advises that excision should be practised when it is possible, and the part affected is not of too great extent; and in one of his cases, even after this had been done, the disease advanced. In some of the cases there has been reported amelioration by the use of alkali applied to the tongue in spray—by the internal administration of natural waters, such as those of St. Christau, upon which Bazin strongly relies. These cases, with those recorded in this paper, lend support to the view of the author that they are due, or rather that some of them are due, to an arthritic, or, more precisely, to a dartro-arthritic diathesis. Such a view would induce a resort to anti-psoriatic treatment, especially when associated with psoriasis or other disease of the skin.

The case reported on a previous page by Dr. Keyes forces us, I think, to admit also the syphilitic origin of ichthyosis, not as a "residuum" (Kaposi), nor, so to speak, as a cicatrix of a former syphilitic lesion, but as a syphilitic manifestation *per se*. A somewhat similar case is narrated by Mauriac, with the disappearance of the lesion under antisyphilitic treatment. From these cases, and from a third that has only been

seen since the first portion of this paper was written, wherein the patch of bluish opacity occupying the anterior half of the tongue had resulted from numerous mucous patches, I should be disposed to suspect syphilis as a cause when the ichthyotic patches were thin, of the color of watery milk, or even bluer, and of but little resistance. The irregular, circular mottling which was present in this case as well as in Keyes's, with the adherence of the thin and moderately-changed mucous membrane to the subjacent parts, would also be suspicious of syphilis.

Finally, the ichthyoses, including those caused by known irritations, such as the *plaques de fumeurs*, glass-blowing, etc., may be suspected of malign tendencies should they present themselves as well-defined, thick, and snowy-white patches. The tendency to epithelioma is probable in proportion to the increased growth of the epithelium.

Should in the progress of the disease cracks or fissures occur, benefit is derived from lightly touching them with caustics, but no advantage has resulted from the action of escharotics upon the patch itself. The tongue should as far as possible be guarded against all sources of irritation. If any jagged teeth be present, they should be smoothed off or removed. Highly-spiced condiments must also be avoided.