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ORIGINAL ARTICLES.

A STUDY OF THE COINCIDENCE OF SYPHILITIC AND NON-SYPHILITIC AFFECTIONS OF THE SKIN.

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There are certain vulgar prejudices relative to the physical condition of the subject of syphilis, whose influence is not without effect in the minds of many physicians. The difficulty, indeed, which even the most expert must at times encounter, in determining the exact nature of certain definitely evolved skin symptoms in such cases, needs no comment. It is a difficulty only too readily evaded by establishing a diagnosis of syphilis, and there abandoning all further ætiological question. The popular and pseudo-scientific reasoning upon this point, traverses the entire field of clinical medicine. It is sufficiently common to read that the reporter of this or that history, suspecting that there was "a syphilitic element in the case," did thus and so. The idea is prevalent that a mischievous, anomalous, capricious or remarkable change of symptoms, is due to the influence of a single one operating coincidentally with several disease-factors; and that this species of pathological Puck is syphilis. It has been urged that syphilis, though possessing sufficiently well accentuated features at some periods, becomes at others so commingled with other diseases as to lose in part its characteristic physiognomy, especially after a supposititious descent to several generations. In this way, an explanation has been sought for the existence of struma, tuberculosis, rickets, leprosy, and many other disorders of the human system. Not a few diseases of the skin have been thus hastily and unreasonably regarded in an improper relation, as, for example, psoriasis, lupus vulgaris, and some of the forms of acne.

It is somewhat curious that the same species of reasoning has not pushed to an equal extreme in the case of other disorders of a greater or less gravity. The intestinal parasites, for example, when discovered in the person of patients affected with chronic disorders, are not generally attributed to the latter ailments. The subjects of pulmonary phthisis are also at times sufferers from other disorders not explained by a tuberculous development. The diarrhoea of the asthmatic, and the sciatica of the man affected with nasal catarrh, are not commonly referred to the same causes.

The more precise, exact, and painstaking the study of the symptoms in syphilis, the more clearly will be recognized two facts, which, though at first view involving an apparent variance, are yet strictly related. The first is, that syphilis much more resembles other diseases in its career and its subjection to accidental influences, than has been commonly supposed and taught; second, that when, preceding, co-existing with, or following other pathological conditions, its unity is preserved, and it rarely undergoes itself, or induces in other diseases such a modification as distinctly changes the type of the resulting symptoms.

The first of these facts is of rather less practical importance than the second, and is, moreover, one that requires for its acceptance a surrender of fewer popular opinions. It is therefore, in this connection, merely supported by the enunciation of the following propositions. The second fact will require clinical demonstration.

(a.) Allowance being made for a wide field of distribution of its lesions and a certain capriciousness in the mode of their evolution, a study of one hundred consecutive cases of syphilis will convince the unprejudiced observer that such cases resemble each other as closely as do a similar number of consecutive cases of pneumonia, typhoid fever, or chronic interstitial nephritis.

(b.) Syphilis is no exception to the general rule, that the patient of greatest vigor best endures its penalties. Herein is the key to an enormous number of the problems, presented in its wide limits of manifestation. It is far more a question of weight, of nutrition, of muscular vigor, of the function of the chylipoetic viscera, than of mercury or other drugs to be employed in its treatment. It is far more important to enquire, in every case, what is the condition of the blood-making process, than, what is the condition of the blood, as regards infection or non-infection. The French School of syphilographers, for example, have well nigh vainly perplexed themselves in the effort to diagnosticate the character of a threatened syphilis from the features presented by its initial sclerosis, but in settling such a prognosis, it is of greater value to determine how many pounds of animal food the patient can properly assimilate in a given period of time, than to know how large is his neoplasm, or how deep his ulcer.

(c.) Syphilis acknowledges subjection to the great accidents, which commonly and evidently work changes in all the disease-processes of man. Thus, chronic alcoholism, malaria, temperature changes sufficiently severe to prolong or aggravate disease, and

a long list of other agencies, operate with similar effect upon an equally long category of maladies. He who gets a pneumonia, after lying drunk in the gutter on a severe night in winter, has, after all, but a severe pneumonia. And, similarly, the syphilis of the old man, broken down with the debaucheries of a half century, we may, with the French describe as "galloping." But this is merely a rapid evolution of grave symptoms which in no other respect differ from those of common observation.

(d.) Syphilis, like other diseases, may lurk obscurely in the system, but everything said and done, it must be betrayed by syphilitic symptoms, or we cannot admit its existence. Not every man who is losing flesh has become tuberculous. Every pallid wife with a dissolute husband, has not undergone infection. Kassowitz has well emphasized this point in his protest against the assumption that every abortion of even the syphilitic woman is not necessarily due to syphilis, nor the product of conception of necessity infected.

(e.) Vulgar belief to the contrary, notwithstanding, cases of syphilis, like those of other diseases, are readily separable into three well-known groups:—First, the mild, benignant or self-limiting, requiring no treatment. Second, the grave, malignant, where treatment can have little or no effect. Third, those falling between these two extremes, where judicious treatment is capable of turning the scale in one direction, and injudicious treatment in the other.

(f.) Lastly, there is no specific treatment applicable to every case of syphilis, which can be safely employed to the exclusion of all others. This is almost an axiom in general medicine. He who treats rheumatism with remedies addressed solely to the supposed rheumatic diathesis, and he who treats pulmonary phthisis with medicaments solely directed to the lungs, will commit the blunder of him who relies exclusively upon so-called specific medication in the treatment of syphilis.

This much premised, it is proposed in what follows to inquire how far clinical evidence supports the second of the two propositions set forth above, that, viz., which recognizes the unity of syphilis displayed in fairly typical symptoms in the subjects who are affected with other diseases, more particularly those involving the skin.

The few diseases to which reference is made in this connection, are considered in the order of the classification adopted by this Association.

In the first group, which includes the disorders of secretion, the varieties of seborrhoea and comedo are probably found in more frequent co-existence with syphilis than the other disorders included in the same class. It is usually in these cases the disorders of the sebaceous glands which precede, and the syphilis which follows. In studying, however, the inter-dependence of the two diseases, the seborrhoeic complications of several of the syphilodermata should have no significance. But the occurrence of syphilis in young and middle-aged subjects, affected both with seborrhoea sicca of the vertex of the scalp and comedones of the face, is by no means rare, either in dispensary or private practice. It is scarcely necessary

to remark that syphilis may in these cases accomplish its usual career without appreciably affecting these disorders, either in the one direction or the other. It does not appear that the manifestations of the latter disease in any way modify those of the others; nor is the seat of the one which precedes, the site by preference of that which follows.

The hyperæmic disorders of Class II. occur frequently as intercurrent accidents in the subjects of syphilis. The fact that they do thus occur, and are then presented in typical and unmodified forms, is established by common experience. Erythema intertrigo of the scroto-femoral angle in syphilitic male subjects, often due to the inunction of mercurial and other irritating unguents in this region, accomplishes its transitory career for the many, and vanishes without the appearance of a syphiloderm. The same may be said of a number of the exudative disorders included in Class III. Last winter I exhibited at the skin and venereal clinic in Chicago a lad nineteen years of age, who had an extra-genital chancre of the thumb, and who displayed a typical lenticular papular syphiloderm on the forehead, trunk, and extremities. His belly, however, was covered with equally typical urticarial wheals, produced by causes to which reference will be made later. These urticarial nodules differed in all particulars from the papular syphiloderm displayed in other regions of the body.

Among other diseases in this group may be named eczema, herpes facialis and progenitalis, the several forms of the acne, including acne artificialis, acne rosacea, impetigo, ecthyma, furunculus, anthrax, and the varieties of dermatitis which are frequently encountered with a typical development in the subjects of an active syphilis. It is difficult to recognize in the symptoms of these several disorders any difference which can be ascribed to the influence of a co-existing syphilis. The most common, certainly, of these coincidences are the furuncular and acneiform lesions, induced by the ingestion of the iodine compounds administered for the relief of the syphilis. These can be seen both immediately preceding, co-existing with and following the evolution of a generalized syphilitic exanthem. They usually disappear promptly after the withdrawal of the exciting cause, and are rarely, if ever, transformed into syphilodermata. Persistent and disfiguring acne rosacea occurring in the middle and later life of an ancient syphilis, is perhaps more often mistaken and mistreated for a late syphiloderm than any other cutaneous disease.

Herpes zoster I have never seen in a syphilitic subject. It is, however, a disease which occurs commonly but once in a lifetime; and for that reason it may be interesting to note that during the past year I have treated an ex-officer of the army for syphilis following nine months after a severe and typical left zoster frontalis, which also had been under my charge. The patient had calvities of nearly the entire vertex. He exhibited palmar and plantar syphilodermata succeeding a generalized rash, which never spared the region still distinctly displaying the typical, but fading cicatrices of shingles.

It is, however, to the subject of the coincidence

of psoriasis and syphilis, to which in this connection it is desired to direct special attention, as illustrated by the following cases:

W. N., male, then aged twenty-one years, unmarried, and by occupation an engineer, first consulted me in the fall of 1875 for a disease of the skin, which he said had then lasted for six months. Prior to that time he had suffered from no disease of greater consequence than a short-lived blennorrhagia, which had disappeared without appreciable sequelæ. He was then of medium height, of light weight for his years, beardless, and a decided blonde in the color of his eyes, skin, and somewhat sparse hair. He denied the fact of previous syphilitic infection in his case, a denial fully substantiated by his subsequent history. He had been for a brief time in the care of a reputable physician of Chicago, who had referred him to me for treatment.

When examined, he was found to be the subject of a typically developed psoriasis of indolent aspect. The regions invaded were the scalp and forehead sparsely; the trunk, back and belly rather abundantly; and the extensor aspect of the extremities. The hands and feet were spared, as was also the face, with the exception of the forehead. The eruption was developed in typical punctate, guttate, and nummular, sharply-defined lesions, covered with lusterless and imbricated scales, beneath which, after their removal, showed a reddened and glazed, or, when eroded, a bleeding surface. There was no pustulation nor fluid discharge of any kind from the surface. The hairs on the vertex were somewhat pasted to the scalp. The subjective sensations were insignificant. The eruption, in fact, so clearly accorded with the symptoms of the disease recognized in its more common manifestations, that it requires in this connection no further detailed description.

The disease did not at this date suggest by any feature that it would prove as obstinate and inveterate as subsequent events demonstrated. It may be here added that this result was probably largely due, first to a decided lack of constitutional vigor on the part of the patient; and, second, to the nature of his occupation, which required his spending a large part of each working day in fatiguing exertion in the relatively high temperature of an engine room.

This at least is certain, that from the date given above to the fall of 1881, a period of six years, this patient was never for any length of time absolutely free from all symptoms of his cutaneous disorder. I was sufficiently fortunate to retain his confidence throughout the entire period, lasting from my first observation of his case to the present. During this time he has been exclusively under my charge, and repeatedly under my observation at short intervals.

His history during what may be termed the purely psoriatic stadium of his case, may be described in a few words. The disorder exhibited itself in a series of alternate periods of activity and repose, varying naturally in point of duration and severity. During the six years not more than four really severe exacerbations occurred, and in but one of these was it really necessary for him to abandon his daily toil. Throughout the whole the efflorescence was similar

in its general features as to the parts of the surface invaded, the color and contour of the patches, and the character of the imbricated scales. The chief difference was exhibited in the size of the disks. In the most severe of the really aggravated expressions of the disease to which reference has been made (that, viz., in which he was so disabled as to be compelled to abandon for a time his daily labor), the eruption became extensively diffused. But very few islets of sound skin were then left visible on the trunk, and the hands and feet were almost the sole parts of the extremities which remained uninvaded. At this time the inflammation of the skin reached a very high grade. At any one given moment of observation but very few scales could be detected on the surface, though the clothing of the person exhibited them in profuse quantity. The scales, indeed, were so rapidly formed, and after formation sustained so slender a relation to the deeper parts of the epidermis, that the slightest friction by the clothing, the hands, or the medicaments employed topically for the purpose of relieving the distress, swept them at once from their bed. The skin thus exposed was tumid, deep purplish-red in color, and its surface had a glazed appearance, as though covered with a varnish of dull hue. The elevation of the involved above the unaffected integument, as measured at the defined margin of the one rising above the other in a few unaffected islets, did not exceed one millimeter. The entire surface of the chest, back, belly, and thighs presented thus a single sheet of angry, swollen, and deeply reddened skin, with occasional heaps of sparse scales left adherent at a few points. The surface thus involved was distinctly dry. A linen handkerchief passed over any part of it could not be made to absorb a drop of fluid.

The picture presented at this date by the patient, was so different from that of a typically evolved psoriasis diffusa that one studying for the first time the symptoms of this stage, might have been unwilling to accept a diagnosis of psoriasis. There was here, indeed, a close correspondence with the condition described by Tilbury Fox, of London, in 1875, as pityriasis rubra. That it was, however, a true psoriasis of exaggerated type, was demonstrated clearly by the fact that it had not only begun by a display of the strictly classical symptoms of the last named disease, but also in its involution (which did not fail to be declared in the course of a few weeks), distinctly reverted to the same type. The giant patches of diffuse involvement broke up into palm-sized and nummular disks of defined outline and clearing center, often with a slightly raised border and covered with scales of firmer adherence and nacreous hue.

This was the first exaggeration of the disease that occurred after the date when the patient first came under my observation, and though this has been followed by a few others, none of the latter have begun to equal the severity of the first. In these less grave accesses, the back, belly, scalp, forehead and extensor aspects of the thighs would become covered with egg-to palm-sized, deeply reddened scale-covered disks, set together so thickly that it might be roughly esti-

mated that about one-half of the skin in these regions was involved. There would be two or three conspicuously defined egg-sized patches on the forehead, a few on the scalp, scarcely any on the face. The hands and feet were at no time involved. After fully completed involution, the skin of the patient would be left in a pigmented condition, with perhaps a very few patches on the sacrum, lumbar region and elbows.

Numerous internal and external remedies were from the first employed in the treatment of this patient, some proving quite effective, some valueless; none with the result of preventing the tendency of the disease to recur. To what extent the mitigation of the malady in its successive periods of activity may have been due to the medication employed, it is difficult to determine. Arsenic was given both in the form of Fowler's solution and Asiatic pills, for long periods of time in maximum doses. When pushed, there was eventually produced, as a rule, a decided amelioration of the general condition of the skin. Iron, phosphorus, copaiba, and the alkalies (the latter for experimental purposes) were also at times employed. Locally, *sapo viridis*, the tarry compounds, chrysarobin, pyrogallol acid, naphthol, with other substances esteemed useful in the local treatment of the disease, including Turkish and Russian baths, were all at times employed. As with the substances used internally, some seemed for a time of value, some were undoubtedly worthless; none, as has been seen, were capable of completely relieving the skin. The same may be said of a method pursued for a short time in this case, namely, the wearing of under-clothing made of impermeable material for a part of each day.

In the year 1879, this patient contracted a second clap, during one of the intervals between his accesses of psoriasis. It proved sufficiently manageable, but was followed by a stricture of the membranous urethra, which, when it was first discovered, barely admitted a sound of the size of No. 10 of the French scale. This coarctation was rapidly dilated to No. 34, when the resulting gleet and dysuria disappeared. It is occasionally necessary for the patient at this time to distend his urethra with a full-sized steel sound.

The uniformity long displayed in the skin symptoms of this patient (and set forth with some detail in these pages, in order that its definite features might be clearly recognized), was not interrupted till the winter of 1882. The patient was then in rather better than average health, and his skin was fairly clean. On the 7th of February of the year named, he exposed himself sexually, with a woman of the town, and first noticed that he had some disease of the privates, on the 7th of the following month, the lesion having thus accomplished an incubative period of 28 days. It may be regarded as probable that the exact incubative period was somewhat shorter than this, since the frequent invasion of the skin of the foreskin by patches of psoriasis, would naturally render the patient rather less observant of any special changes occurring in this portion of his body.

When examined, a pea-sized nodule was recognized on the lower limb of the prepuce, with a slight superficial erosion, and accompanied by induration and

tumefaction of the lymphatic glands in each groin. His sore was at once pronounced to be an infecting chancre. He was given a vinous lotion, and told to bathe the part with this, and to carefully protect it from external irritants by the aid of a pledget of borated cotton. No other treatment was ordered, either internally or externally, and none was, as a matter of fact, employed, the patient having by this time learned to follow orders implicitly.

During the ensuing three weeks the sore healed, leaving an indurated button in its site. The patient was stripped and carefully examined by me every three or four days. On the fiftieth day, after the appearance of his chancre, it could be readily determined that there was post-cervical adenopathy. For the few days preceding, he had been suffering from malaise, substernal pains, and a decided feeling of languor. The skin of the trunk was then rather deeply stained as the result of thorough applications, made some months before, of chrysarobin, but was nevertheless carefully watched for the occurrence of a new exanthem. None, however, could be thus detected. He presented the usual so-called "billious" appearance of the face, with increasing tumidity and tenderness of the cervical and post-occipital glands, between the fiftieth and sixtieth days, during which period two distinct, nail-sized, whitish patches appeared on the right side of the tongue; and a pea-sized ulcer, superficial in site and with a reddened halo, on the inner face of the left tonsil. At this time, then, the patient's condition was briefly this: Mucous patches of tongue; tonsillar ulcer; cervical and inguinal adenopathy; cicatrized chancre, with pea-sized indurated nodule in its site; vague pains, and general malaise. On the body appeared an eruption which was in full evolution by the sixty-fifth day.

At the last named date it could be described as follows: The eruption appeared in smaller and larger, distinctly defined and slightly elevated, large coin-sized disks, covering the scalp, trunk, belly, back, and extremities. The patches were of a crimson-reddish shade when deprived of their scales, the latter being imbricated and of characteristic silvery whiteness. In brief, it was impossible for me, after prolonged and careful scrutiny, to recognize any features of this eruption different from those previously exhibited upon the surface of his skin. He also, long familiar with the symptoms displayed upon his integument, pronounced this to be the same in all respects as that spread before his own eyes during the successive outbreaks of the preceding five years.

The patient was now, for the first time, placed on a mercurial course; and all treatment of the psoriatic condition, both internal and external, was for the time suspended. From this date a gradual change was effected in the character of the general symptoms. The eruption, which may be described as psoriatic, slowly disappeared during the ensuing two weeks, and in proportion as it abandoned the surface of the skin the latter became the seat of an efflorescence made up of groups of pustules in series of development. These require a brief description, as, during the subsequent evolution of the syphilis, they constituted its most pronounced feature.

The pustules belonged, for the most part, to the variety of syphilitic lesions of the skin, described as the "small, flat, pustular syphiloderm." They were flattish or globoid in shape, and varied in size from the rape seed to the coffee bean. They were most often recognized in groups, arranged in the center of deeply reddened and tender patches of skin, infiltrated in broad areas. They occurred chiefly over the scalp, nucha, ears, chest, fore arms, thighs and legs. These pustules became rapidly covered with friable, uneven, yellowish and yellowish-brown crusts, beneath which a very superficial ulceration appeared. As the disease progressed, these ulcers occasionally deepened, especially over the lower extremities, where shallow circular pits formed, requiring a stimulating dressing before they underwent repair. In their completest expression, the appearance of the patches of disease under observation was certainly suggestive of eczema. Peculiarly persistent and characteristic oval patches of this kind, several centimeters in diameter, were thus formed upon the extensor faces of the legs, immediately below the patellæ. These were reddened and oozing, crusted where pustules had originally existed, and crusted also in places where there was merely desiccation of the ooze in yellowish-brown, flattened, granular, more or less adherent, poorly contoured crusts, strongly resembling those characteristic of certain forms of seborrhœa oleosa of the face. The surfaces thus affected were often quite painful. At the date of this writing, June 10, 1883, no cutaneous symptoms have appeared more widely divergent from the psoriatic type, than those here described.

During the period which has elapsed since the evolution of the symptoms which markedly differed from those first noted, the course of the disease, or diseases, under consideration, has been characterized by a striking uniformity. It may be here stated that the patient, after the appearance of the pustular syphiloderm, was kept steadily under the influence of mercury, administered both by the mouth, by inunction, and by fumigation; the arsenic having been completely suspended up to the first of June last. The reason for the change in the treatment, at the date given, will appear later. The patient kept careful observation of his weight during this period, and when he lost in flesh, he was placed at once upon ferruginous tonics, to the exclusion of all other internal treatment.

It may be said in brief description of the cutaneous symptoms occurring in this case subsequent to the first development of the last occurring disorder, that no lesions of a new or strikingly different type were at any time presented, but that there has been a regular and continuous development upon the skin, of groups of superficial pustules, similar to those already described. These unmistakably decreased in number and in the frequency of their formation, as the treatment progressed. *Pari passu*, however, as these lesions exhibited the changes described, there appeared and spread over certain portions of the body, other cutaneous lesions of a distinctly psoriatic type, totally different from the recognized squamous syphilodermata, apparently taking possession, area by

area, of the field abandoned by the syphilitic lesions. When these two distinctly different varieties of lesions could be recognized simultaneously upon the surface of the skin, the most careful examination failed to detect any combination of the two, in what might be described as "mixed" symptoms.

The following description of the condition of the patient on the 14th of last March, may fairly well illustrate the points to which attention is here directed.

The patient was weak and anæmic; exhibited a mild grade of post-cervical adenopathy, two mucous patches on the tongue, and some engorgement of the pillars of the fauces. The primæ viæ were in fair condition. A few friable crusts superimposed upon tender, finger-nail-sized exuding patches, were distributed among the sparse hairs of the scalp. On the right side of the nucha was an egg-sized tender patch, eczema-form in type, where the reddened and infiltrated skin, distinctly oozing at several points, was also covered here and there with yellowish-red, friable and granular crusts. Precisely similar, irregularly annular, and tender patches swept over the upper rim of each aural pinna. On the brow were two insensitive, circular, small egg-sized patches, perfectly dry and scaling, the scales being whitish and lustrous. On the removal of these appeared moderately reddened, smooth and glazed disks, with a decided tendency to centrifugal clearing.

The back, shoulders, and belly were fairly well covered with insensitive, punctate to nummular, circular, scale-covered disks, showing, when the scales were removed, reddish, bleeding, or slightly glazed surfaces. A few of the larger exhibited annular forms in consequence of central involution. When not subjected to erosion, these lesions were uniformly dry. Not a pustule nor a patch of exuding surface could be seen upon or between any of them. The same general condition, though with the development of far fewer lesions, was recognized upon the arms, forearms and ankles. The hands and feet were entirely exempt, including, of course, the palms and soles; which latter, it may be remarked in passing, were similarly exempt throughout the entire course of the two diseases.

The integument of the penis exhibited several small, dry, scaly or reddened patches. On the right of the scrotum was an area, measuring three by five centimeters, moist, reddened, and tender. Situated nearly centrally as regards the patch, was a friable, dark-brown crust, thickest in its center, of rupioid shape, and as large as a coat button. Beneath it was a shallow, circular ulcer of corresponding size, secreting a thin, puriform fluid. Palm-sized and arger, reddened, and infiltrated areas of integument were to be seen on the antero-lateral aspects of the thighs. These were tender and painful, and a few well formed, split-pea sized pustules, with scanty, interspersed, friable crusts, were here and there visible. Areas, very similarly involved, stretched from below the patellæ to the middle of the anterior faces of the two legs, but here were six or eight button-sized, rupioid crusts, overlying shallow ulcers. Where there were no crusts, there was evidently a slight ooze, from beneath thin, very irregular, ill-defined concre-

tions, resembling those found in certain forms of seborrhoea oleosa. These were the most tender and painful of all the patches on the body. Lower down, or near the ankles, as already intimated, were nummular, psoriasiform, dry, circular, scaling disks, their shining and whitish scaly thatch often projecting beyond the distinctly defined outline of the disk.

The inguinal adenopathy was of moderate grade; and careful observation could still detect a slight degree of thickening in the lower limb of the prepuce, where the initial sclerosis first appeared.

For the purpose of experiment, the iodide of potassium was on several occasions administered in full doses, for weeks at a time, during the progress of the case, without the production of iodism, and with no special effect upon the eruption, which, however, did not fail to pursue its uninterrupted progress toward involution; as indeed had been the case when mercury had been administered in alternation with a ferruginous tonic.

By the first of June the decided preponderance of the psoriasiform over the syphilitic lesions suggested a return to arsenical treatment. This was instituted by administering the combination of the mercuric bichloride, the liquor arsenici chloridi and the tincture of the chloride of iron, with dilute hydrochloric acid, suggested by Professor Goodell, of Philadelphia, and known as his "mixture of the chlorides."

This has been steadily continued up to the present date, July 1, 1883, the patient manifestly improving under its use. He now presents the appearance of one who is affected with psoriasis vulgaris, very few anomalous patches existing upon the skin; and no lesions upon the mucous surfaces.

It is interesting to note in this connection that the patient himself, in consequence of his rather extended study of psoriasis in his own person, was enabled to discriminate intelligently between various groups of symptoms displayed in the course of his case. The impression thus produced upon one who, though most interested in the issue, was yet in total ignorance of the significance of the special symptoms of his two diseases, is certainly not without some value. For this reason, on the 4th day of June, 1883, I had him remove his clothing and seated myself, pencil and paper in hand, immediately before him. The following questions were asked him by myself and his responses were taken down *verbatim*, at the time. It is necessary to explain that the words "new" and "old," as applied to his diseases, were terms which he had himself gradually come to employ in the course of his relations with me:

"Mr. M.," said I, "I desire to verify by your own statements my notes of your case, which now extend over a period of several years. I propose to ask you some questions and to write here your answers. From the time when you first became affected with your old disease (that is, psoriasis) to the date when you first acquired the new disease (that is, syphilis) were you ever entirely free from all traces of the former?"

He responded. "No, sir; there were always some patches of the old disease about me, even when I was not suffering from the severe attacks."

"Well," I returned, "that period extends from the fall of 1875 to the fall of 1882—over six years. In that time do you think that you had become so well acquainted with the symptoms of your skin disease as to be quite sure of recognizing them under all circumstances?"

"Yes, sir; I am quite positive that I could."

"Now, returning to the earliest eruption, after you acquired syphilis, to which disease did it belong?"

"It belonged to the first; there can be no doubt of that. I remember it particularly because you said that the old disease would probably be somewhat modified by the new one, and I was considerably disappointed when I found at first it was nothing less than the same old eruption."

"What happened next, do you remember?"

"Yes, the old went away for the first time, completely, since I had it; and then the new one came on."

"Was there then any of the old mixed with the new?"

"No, it was all the new."

"Are you sure of it?"

"Yes, sir; quite sure."

"Has any of the old appeared since then?"

"Yes, it has appeared since."

"Have you now upon your person any of the old disease?"

"Yes, sir, the new and the old, both."

"Have you until lately seen any of the old?"

"Well, I will tell you just how it has been. First, it was all old, then it was all new. Then gradually there was more and more of the old, and less and less of the new."

"What would you say was the difference between the new and the old, and how do you recognize this difference?"

"Why, that is simple enough. The old began as a sort of small red bunch or spot, then it would scale, and you could see the red about the scale. This new disease never does that. It forms a sort of gum, and then oozes and dries. The old had a smooth scale. The scale of this new disease crumbles up, which the old never did."

"Now I will ask you if you can tell me to which disease the several patches now visible upon your body belong."

"Certainly, I can."

"What are those on your forehead?"

"They are those of the old disease."

"What disease produced those on the belly?"

"The old."

"What disease those on the back?"

"The old."

"What disease those on the buttocks?"

"The new."

"What disease those on the knees?"

"The new."

"What disease those on the legs?"

"The new."

In this way the patient very promptly and confidently answered each question that was addressed him. It certainly occurred to me that his responses were made with an accuracy greater than that of the

medical man who is not specially expert in the diagnosis of cutaneous affections.

The only other case which has fallen under my observation of syphilis in a psoriasis patient, may be more briefly described. The patient was an unmarried man, 22 years of age, slim in figure, and a dark brunette in complexion. He lived in a neighboring State, and I saw him but rarely. In the fall of 1881 he visited me for the purpose of being advised respecting a typical and fairly well generalized psoriasis, displayed in coin-sized patches over the dorsum and anterior face of the trunk—in more diffused areas over the scalp, and in still smaller disks over the elbows, forearms, knees and legs. These were typical in aspect, though of a decidedly dark livid hue when the scales were removed, a feature not uncommon in indolent patches of psoriasis when seen upon very dark skins. The hands and feet were exempt from disease. Many of the disks on the trunk were annular in shape, as the result of centric involution.

He remained for two weeks under observation, and then returned to his native place, writing me several letters during the ensuing winter, in which he reported a favorable progress of his case. In the ensuing spring a hastily written note advised me of his intention to return immediately to Chicago, in consequence of a serious complication of his disease. He presented himself in April, of 1882, and his history and condition were then as follows:

In the latter part of February, when he was almost entirely free from cutaneous disease, he noticed after a suspicious exposure of the genital organs, an ulcer of the glands, which had been freely cauterized by a physician to whom he had shown it. The incubative period could not be determined, as he had been living a very disordered life. The sore was slow in healing, and meantime several nodules appeared in the groin. After this he began to lose flesh gradually, and to suffer from vague pains. That which chiefly excited his alarm, and had precipitated his return to the city, was the appearance not many days before of a generalized rash. His complaint was chiefly of sub-sternal and occipital pains.

When examined he was seen to be pallid and considerably thinner in flesh than before, with an anxious expression of the countenance. There was moderate post-cervical and inguinal adenopathy. The velum of the palate was engorged but not ulcerated. There was a single reddish-white, finger-nail sized patch on the inside of the lower lip, whose development had doubtless been hastened by his habits as a smoker of tobacco. The hairs were, to an evident degree, loosened in the follicles on the vertex of the scalp.

The eruption he exhibited I had the opportunity of studying with especial care for about half an hour. I could not, however, in this way detect any essential variations from the condition he had exhibited to me during the preceding fall. My eye was particularly impressed with the same dull livid hue of the psoriatic patches, more particularly those on the trunk, a color which had especially characterized the disease when it was first submitted for examination. The same

regions were involved, viz., the scalp, the trunk and the extremities. The face, hands and feet were exempt. The disks were guttate and nummular, quite dry, well covered with scales, and merely did not exhibit, as they had before, the clearing center where involution had been in progress. There were no pustules, nor infiltrated and weeping patches, such as were seen in the case described above. The eruption was displayed rather more plentifully than at the date of its previous examination.

Certainly there was here no cutaneous symptoms of systemic infection, the syphilitic influence being limited in expression to the subjective sensations, the evident cachexia, the engorgement and enlargement of the glands, the moderate defluvium capillitii, and the lesions seen upon the mucous lining of the palate and mouth, the complexus of the whole occurring after an incubative period. The skin was, without question, in a purely psoriatic state. It is, however, to be admitted in this case, that it was not absolutely clear that an unusually prolonged incubative period had not occurred, while as a matter of fact the patient was not sufficiently long under observation to establish with certainty all the facts in his case. He left Chicago immediately after this last examination, and, returning to his home, suffered from business reverses, which so changed his plans that he soon after left the State, and has not since been under my observation.

Summarizing the facts and properly established conclusions suggested in a study of these two cases, we find:

1. Two patients affected with generalized psoriasis become unmistakably syphilitic.

2. At the date of the explosion of syphilis (or in one case possibly slightly before that period), both patients are seen covered with an abundant psoriatic eruption of typical aspect. In the verbal discussion of these cases at the last meeting of the Association, I suggested that the skin, long accustomed to the "trick" of the psoriasiform development, responded to the incentives of the new disease by an eruption precisely similar to that it habitually displayed.

3. In the former of the two cases reported, the psoriasiform eruption is succeeded by the appearance of a pustular syphiloderm, irregular in type, anomalous in certain features, and erratic in development, modified indeed subsequently by mercurial and other treatment, but not thus made to change its essential features. With this there is no admixture of a psoriatic eruption.

3. As this same case progresses, the purely syphilitic symptoms gradually give place to those of a purely psoriatic type, till the latter preponderate and are finally completely substituted for the former.

5. From first to last, no lesions, nor groups, nor series of lesions, can be recognized as exhibiting features common to both of the diseases in question. The two, when simultaneously recognized upon the surface, are separately evolved, in different regions of the body, in separate and definite forms.

6. These two forms may be described as, first, typical psoriasis; second, modified syphilis.

7. The modification of the syphilodermata was

not in the direction of the psoriasis, nor of any similar disease. If such a modification be admitted in this case, as the result of the specific influence exerted by the psoriasis, it was in the direction of the eczematous, and not of the dry and scaling exanthemata.

But, 8. The modification, here to a degree recognized in the course and features of the syphilodermata, need not be explained by the supposition that the psoriasis exerted a specific effect upon the other disease. It is reasonable to conclude that any prolonged cutaneous affection, one also long treated by external remedies of a stimulating character, would leave such an impression upon the skin as to somewhat modify its expression of the syphilitic influence.

9. It is interesting to note here, that the palms and soles were not invaded, regions where the differential diagnosis between the two diseases in question has been studied with special care.

10. Indeed, surveying the points upon which stress is generally laid in establishing a differential diagnosis between the two diseases, it will be seen that when the two co-exist, the value of these diagnostic differences, however great under other circumstances, is then materially diminished. These points are, the symmetry of the one disease and its relative failure in the other; the palmar and plantar involvement, already referred to; the abundance, or the reverse, of the scales; the size and degree of infiltration of the involved areas; the color of the patches; the establishment of a neoplastic development in the skin of certain syphilitic subjects; and the well-known tendency of psoriasis to invade the regions of the elbows and the knees. It is a sufficient commentary on all these points to refer merely to the fact, well illustrated in the cases here reported, that the syphilitic patches of moist and eczema-form type, were found over the extensor faces of the knees; and that the typical psoriatic disks were not seen here, but in perfect development over the belly, the forehead, and the scalp.

This subject may be well concluded with the briefest reference to the coincidences of a few other non-syphilitic diseases with syphilis. In class IV of the hæmorrhages, is named purpura rheumatica, or peliosis rheumatica. I was lately asked to see a patient in the Cook County Hospital, of Chicago, with Drs. R. N. Isham, N. Bridge, J. H. Hollister, and others. The man was unmistakably affected with the symptoms of land scurvy and syphilis. He was not in a condition to give an account of himself, and it was hence difficult to determine which disease had preceded. Numerous coin- to palm-sized hæmorrhagic patches, some evidently of long standing, were distributed over the trunk and limbs, and there had been hæmorrhages from the mouth and nostrils. A recent pustular syphiloderm, with small-sized lesions, was dispersed among the hæmorrhagic patches, rarely over the discolored parts, and traces of the induration of the initial sclerosis with inguinal adenopathy, could be recognized in the genital region. We had no difficulty in going over separately each region of the body, and determining what lesions should be ascribed to each of the two diseases present. Sufficient was known of the history of the case, to make it cer-

tain that the patient had the scurvy before he suffered from syphilis.

In Class V. of the hypertrophies occurs argyria, several typical cases of which have been observed in syphilitic subjects. Yandell's two cases (*American Practitioner*, September, 1872) are reported as having been relieved by mercury and iodine. I have seen two typical cases in syphilitic subjects, both presented in public at my clinic. The bluish slate color produced by the silver nitrate was finely exhibited on the face and upper portion of the chest of each patient, regions spared by the syphilodermata elsewhere visible in each case. The patient, it may be said in passing, believed the dyschromia to be the result of the infection.

A male patient, twenty years of age, affected with congenital ichthyosis simplex, presented himself to me in the fall of 1880 with an infecting chancre of the prepuce, followed by a rather severe form of syphilis. The ichthyotic disorder of the skin had almost completely spared the face, being decidedly in best expression on the extremities, including the hands and the feet. In this case the prominent symptoms were those of syphilitic involvement of the mouth, throat, and larynx, which complications were both prolonged and obstinate. On the skin there was seen at one time a development of the small, flat pustular syphiloderm, conspicuously about the mouth and anus, and over the scrotum. The alopecia with remaining dry, lusterless hairs was considerable. In those parts of the extremities covered with typical and distinct polygonal and diamond-shaped ichthyotic plates, no syphilodermata were at any time recognized. The cutaneous symptoms throughout were indeed trifling. The patient was under my observation for two years in the city of Chicago, after which he removed to Montana. Though naturally of a delicate constitution, he made a fair recovery, and wrote me lately that he was under an engagement to marry.

Class VI of the atrophies included alopecia areata. I confess that during the past two or three years the suspicion has been more than once awakened in my mind that syphilis might be one of the several exciting causes of this singular disorder. I have notes of four male patients, all in early adult life, who exhibited alopecia areata of the region of the beard, during the first year after syphilitic infection. Of course the question arose in each case, Was not this a form of alopecia syphilitica of the region named? In all these cases the defluvium capillitii was sudden, and involved perfectly well-defined, abnormally white areas, varying from the size of a silver dollar to a hen's egg. Each was completely destitute of even a single hairy filament, when examined, not even lanugo hairs appearing under an inch objective. These bald patches were in no instance either preceded or followed by syphilodermata of the affected areas, the hairs, also, of the unaffected regions of the scalp and beard being retained in normal vigor and abundance. In one place a few patches formed on the scalp. Two were exceedingly well-marked representatives of the Jewish race, with abundant growth of jet-black hairs in the beard. Only one of the four had what might

be termed a severe form of syphilis. He presented himself at the first exhibiting a generalized papular rash, with a few pustulo-crustaceous lesions about the nose and cheeks. A group of these ulcerated, and left a characteristic bean-sized scar in the center of the right cheek which I have had the opportunity of examining afresh since this paper has been in preparation. The alopecia areata appeared later, and spread beneath the angle of the jaws, sparing the region of the scar left by the syphilodermata.

It need scarcely be remarked, in conclusion, that the diseases in the last class, produced by the animal and vegetable parasites, are seen in equal development on the skins of the syphilitic and non-syphilitic. The former furnish a list of patients figuring in all statistics of dispensary, hospital and public practice. As a rule, no modification in the symptoms of these disorders can be determined, when they are studied on the syphilitic skin. Ringworm in uncomplicated forms I have seen several times on the beard of the subjects of an active syphilis. Tinea versicolor might almost be described as of common occurrence, on the chests of adult male syphilitic patients applying for public relief. I have often observed this coincidence without making note of it, and therefore merely refer here to the six last cases observed by myself. One of these concerned the breast of a young woman, infected by her husband with syphilis. The characteristic patches of the parasitic disease were in all unmodified, and the microscopical appearances of the fungus were those commonly seen. In three of these cases the disease was supposed by the patients to be of syphilitic origin. In no one was there any difficulty in removing the mold by the proper measures.

The animal parasites flourish with even greater frequency, on the filthy skins of many of the syphilitic patients of both sexes presenting themselves at the dispensaries of the large Western cities. As for the lesions which they induce upon the syphilitic skin, and between syphilodermata, it has been before remarked that the advanced students attending the clinic are enabled to point out the individual signs of the one and of the other disorder on the same skin. I cannot recall a case where the largest invasion of the skin by bugs and lice, has made the diagnosis of syphilis, in dispensary and clinical practice, a matter of difficulty.

If time permitted, it would be interesting in this same connection to review briefly the disorders of the human system not attended with cutaneous lesions, whose evolution progresses in the syphilitic patient, apparently without interchange of the resulting phenomena. I have seen several well-marked cases of pulmonary phthisis and Bright's disease of the kidneys survive, contrary to my expectation, a syphilitic infection. During the past winter, my colleague, Dr. Chas. T. Parkes, performed ovariectomy at my request, upon a female patient under my care, affected with gummata of the lower extremities, some of which had left palm-sized cicatrices upon the anterior faces of the lower extremities. The ovarian fluid and tumor together weighed in this case 18 pounds. The patient recovered without a single mishap, and consulted me

in two weeks after she had resumed her usual avocations, for a recurrent tibial osteoscopic pain.

My apology for the length of these remarks is to be found in the very generally received opinion, to which reference was made at their outset. It seemed to me that the time has come, when it should be more distinctly recognized that syphilis is syphilis, and not essentially any other disease; that its symptoms are to be regarded as trustworthy signs of its existence and of the existence of no other disease; that the loose opinion respecting a so-called "syphilitic element" in any doubtful case, is usually begotten by a faulty diagnosis; and, finally, that syphilis may co-exist with a long list of diseases, without betraying an essential modification of either the one or the other.

PÆDIATRIC THERAPEUTICS AND ITS RELATION TO GENERAL THERAPEUTICS.

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In a lecture delivered recently to the class of medical students at Bellevue Hospital Medical College by my former preceptor, a thorough gentleman and scholar, Prof. A. A. Smith, on the frequent repetition of doses of medicine, he clearly opens up a field of investigation which, to my mind, is one of the greatest importance. It is as it were a rich mine of truth heretofore but slightly developed, and only been tested by the skilful assayer sufficiently to certify to its intrinsic value, and in it we may find leads of rare value, some of which he there uncovers so that we may peer in on its richness and beauty.

I believe and trust that the time is not far distant when from them we will learn important and practical lessons which will greatly contribute to our success in our battle with disease, and thus bless our noble profession as well as our beloved humanity.

One of the very important questions of the day now is, do we seek for the *physiological* effect of medicines, or do we derive their full poisonous or *drug* effect when we administer them to our patient?

If the former (and to my mind that is what we usually seek for), then certainly that can be better obtained and maintained by the small and frequently repeated doses, and thus, too, we can the better avoid the deleterious and often dangerous effects of the latter. The doctor in his lecture gives us his experience coupled with the experience of some others in the small and frequently repeated doses of chlorate of potash, croton chloral, bicarbonate of soda, balsam of copabia, atropia, the bromides, chamomilia, tartar-emetic, nux vomica, cantharides, pulsatilla, callabar bean, ergot, aconite hamamelis and belladonna. The experience he narrates to the class is quite strange and interesting indeed, and certainly pregnant with important facts and suggestions. I perhaps would have paid less attention to it if I had not had the same experience in the use of some of the medicines mentioned, and knowing by experience that in them the doctor was correct, I was the more