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ON HERPES GESTATIONIS :

A RARE AFFECTION OF THE SKIN, PECULIAR TO PREGNANCY.

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THE eruption, the history of which is here presented, differs materially from the forms of vesicular disease commonly known and described, but is of a character so distinct and yet so marked in each of the nine cases here analyzed, that it claims recognition and descrip-

tion among the cutaneous lesions liable to be met with.

I will first give the clinical history which furnishes my text, and let the other cases and commentary follow.

Mrs. J. H——, aged 32½ years, was confined with her first child in Nov. 1870. Two months previous to her delivery, an eruption began to appear, first and chiefly on the hands and feet, subsequently involving to a greater or less degree all the rest of the body, except the head. This eruption, which I did not see, is described as beginning in papules, which rapidly developed into vesicles, while, later, blebs were formed, especially on the feet about the toes and on the soles, of irregular shape and size, from one-half to one inch, or even more, in diameter; the vesicles, which were generally in groups, also varied in size from very minute elevations to the bullæ above described. After these had ruptured or were punctured they dried up, leaving only a brownish stain; there was at no time any exuding surface resembling eczema, and though the contents of the vesicles became turbid, the eruption could never be called pustular. The affection of the skin was attended with intense itching, and after it had become extended was accompanied with much prostration and considerable fever, a pulse of over 100, and a temperature of 104° Fahr.

The disease did not seem to be affected by the most varied treatment which was employed for her relief, but towards the very end of gestation disappeared gradually, so as to be almost entirely absent on the birth

of the child, after having lasted two months. One or two days after delivery the vesicles again made their appearance in a pretty general crop, which lasted for a few days and then dried up slowly, yielding at that time much discharge. During the eruption she was troubled with neuralgic seizures about the chest, which ceased with the cutaneous manifestations of disease.

After the disappearance of the eruption, subsequent to delivery, there was no sign of a recurrence for more than 2½ years, when she again became *enceinte*. In the interval, however, commencing several months after the birth of the child, she was subject to occasional and quite severe attacks of urticaria, which tendency lasted for about a year. The wheals would appear chiefly at the wrists when exposed to cold, also about the face, and frequently, coming to breakfast feeling perfectly well, the lips would suddenly swell with an erythema and remain so for half an hour. She had nursed the child but insufficiently for three or four weeks, and the milk then ceased.

When first seen by me, June 2d, 1873, she was for the second time pregnant, five months; in fair general health, pulse of moderate strength, 70, appetite good except in the morning. She had retroflexion of the uterus.

About two weeks previously she began to notice an irritation of the skin of the hands and feet, which caused her to scratch the parts, when there would shortly appear little groups of vesico-papules, which were observed principally about the ulnar aspect of the hand and also running up on the arms; on the feet

likewise similar elements were seen along the inner side and around the ends of the toes. In the former attack the disease seemed to develop mostly upon the inner surfaces. There is no family history of importance, neuroses being unknown; there is a little rheumatism.

The eruption was regarded from the first as an herpes, dependent upon reflex uterine irritation; and the history of the former attack, together with the futility of the treatment then employed, led patient and friends to anticipate prolonged suffering, relieved only after some months when the uterus should be emptied of its contents. She is ordered to avoid rubbing or irritating the parts where the eruption had already developed, or where it was about to appear, and, in place of scratching, bathe the parts whenever they itched with a wash composed of a teaspoonful of the "*Liquor picis alkalinus*" (℞ Picis liquidæ ʒ ij., Potas. causticæ ʒ i., Aquæ ʒ v. M.) in a teacup of water. Also directed to eat largely of oatmeal before retiring every night and ℞ Ferri et strychniæ cit. ʒ i.; quiniæ sulph. ʒ ss. M. Div. in pil. No. xxx, take one after meals three times daily.

June 13.—There has been some relief, but for the past few days the disease has been gaining, more vesicles are developing, mostly in groups about the thumb and little finger and on the back of the hands; the palms are also sprinkled with partly formed vesicles whose fluid is just perceptible beneath the thick epidermis; the feet are very similarly affected, the limbs of the left side being worse than the others. Ordered to stop the pills of iron, strychnine and quinine, and take ℞ Potass.

acetat. ʒ iv.; spts. etheris nitrosi, ʒ i.; ext. tarax. fl., ext. rumicis rad. fl. āā ʒ iss. M. Teaspoonful between meals in  $\frac{1}{2}$  glass water; and ℞ Chloral hydrat. gr. x. at night if necessary to insure not scratching. Puncture the vesicles very carefully by inserting a needle laterally at their base. She is up, and still attends to household duties.

*June 16.*—Patient has been more comfortable, the urine has been very free; there has been no new formation of vesicles until this afternoon, when she has been working in a very hot garret, directly beneath a tin roof, and is much prostrated therefrom. The burning and itching in the feet and hands is now unbearable, and the disease is developing with great rapidity, there being large crops of vesicles over the soles of the feet and on the palms, also around the nails and at the end of the toes. Pulse 64. Ordered to double the strength of the tar-wash, using ʒ ij. of the *Liq. picis alk.* to ʒ iv. of water, and apply thereafter, when dry, mutton-tallow to one hand, on trial. Increase the diuretic mixture to one and a half teaspoonful four times a day. Remain recumbent and use chloral if necessary.

*June 17.*—Is feeling much better; there is less swelling of the hands and feet, and many of the papules and vesicles have vanished. The stronger tar-wash was very grateful, and she passed a quiet night without chloral. The case was seen to-day by my friend Dr. Wm. H. Draper, in consultation, who agreed as to the neurotic character of the disease, and suggested in addition to the present treatment the administration of

two drachms of cod-liver oil, together with three drops of Fowler's solution, three times a day. The contents of the vesicles were found to be alkaline; there was no elevation of temperature.

*June 19.*—Much more comfortable; there is less itching and less development of vesicles. Patient still keeps the bed, and is ordered to continue the local treatment and return to the pills, taking also the oil and arsenic, stopping the acetate of potash mixture.

*June 30.*—Patient is feeling very well; very little irritation or burning in the skin; the affection appears checked, as but occasional isolated vesicles appear, and the old ones are rapidly drying, C. T.

*July 7.*—Patient was up and around at about one month from the time of entering on treatment, and there is now hardly any trace of the eruption; no scars are left. She leaves in a day or two for the country. The vesicles and bullæ at no time have reached the size and extent of distribution attained during the first pregnancy, although the rigor of the onset and the early appearance of the eruption threatened a more severe attack. None of the bullæ have been more than  $\frac{1}{2}$  of an inch in diameter, and but few of the elements could merit any other name than vesicles, while quite a proportion aborted as papules. During the former eruption almost the whole of the body, except the head, was involved, whereas in the present, the cutaneous manifestations have been confined chiefly to the hands and feet, with some development as far as the elbows and knees, and a very slight sprinkling on the trunk.

*September 16.*—Has been perfectly well since last

note, spending much time out of doors in the country. There has been no return of the eruption, save occasional scattered vesicles, giving no annoyance. Still continues treatment.

*October 21.*—Was delivered five days since of a healthy boy; mother and child did well. (The first child is living and has never had any cutaneous trouble.) The internal treatment was continued until confinement. Two days ago, *i.e.*, three days after delivery, there occurred some burning of feet and hands, and there are now groups of vesicles, very minute, about the soles of the feet and dorsal aspect of the ends of the toes; the feet are a little swollen, but the whole matter gives little or no annoyance, and is insignificant compared to the attack which followed shortly after the first confinement. She returned at once to the pills and the wash, and the papulo-vesicles are rapidly subsiding.

*November 17.*—Child one month old, healthy, nurses but in part. Mother doing well. No sign of the eruption. Takes porter every day.

*December 1.*—Slight development of urticaria, as after the previous attack, about the wrists on exposure to cold air. She is very strong and well, and is taking Tinct. ferri chloridi gtt. x., and Tinct. nux. vom. gtt. iij. after meals.

*January 6, 1874.*—Patient is looking remarkably well; no cutaneous trouble of any kind. She still continues the use of the iron and nux vomica, and partakes yet of nourishment at night, as before, beef-tea, milk, etc.

After very considerable search, I find mention of but eight other cases at all similar, and these correspond so exactly with the one detailed above that I give them all in brief, in order to establish the identity of the affection and to distinguish it from other eruptions resembling it to a greater or less degree. The cases are recorded by Gibert, Chausit, Hardy, Wilson, Milton, Klein, and Hebra, in the years 1840, 1852, 1863, 1867, 1868, and 1872 respectively.

Gibert's \* mention is very brief, and is as follows: "A German physician, quoted by Dr. Jos. Frank, has seen a patient who, during every pregnancy after her first confinement, was attacked with pemphigus, during the last months of gestation."

Chausit† does not notice any connection between the disease and pregnancy, but the case answers in many respects to ours: he calls it *pemphigus pruriginosus*, it is as follows:

J— Anna, aged 23, was delivered of her first child, a boy, six weeks before full term. She was of robust constitution, and of good health, but at the fifth month of gestation, from no known cause, she began to be tormented with intense itching and an eruption on the body and limbs of numerous minute solid papules; the itching increased in severity as pregnancy advanced. On the fifth day after *accouchement*, she experienced greater itching and general burning. The fever rose, and some delirium ensued. In the morning the whole body was covered with a very confluent eruption of large salient

\* *Traité pratique des maladies spéciales de la peau*, Paris, 1840, p. 102.

† *Annales des maladies de la peau et de la syphilis*, March, 1852, p. 142.

red papules, resembling in some respects those of erythema papulatum. The eruption preserved the same appearance for two days, and on the third there were seen on the arms some scattered transparent bullæ, varying in size from that of a haricot-bean to a hazel-nut. The number of these bullæ increased from day to day, until now, on the eleventh day, the whole body, including the face, is covered, and the burning and itching have completely ceased. From ten to twenty new bullæ form daily without pain or burning, and, if large, soon rupture, or if small subside by the absorption of their contents. The original papules have disappeared and the bullæ forming daily are not preceded by them. The bullæ ceased to appear on the seventeenth day, and a few days later all traces of the eruption had vanished, except brownish staining where the bullæ existed. A month later, *i.e.*, six weeks, about, after confinement, there was a slight general itching over the body, followed by a few groups of papules, on different parts of the body, which soon faded, no bullæ being formed.

Hardy\* describes a similar eruption of blebs attended with great itching in a pregnant woman, also under the name *pemphigus pruriginosus*. The patient was 35 years of age, had already had nine children, and was now far advanced in her tenth gestation. Since her second child, she had suffered from a similar eruption with each pregnancy, it commencing some weeks after conception, the one described being the eighth. The

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\* Leçon sur les maladies de la peau, 2d part, p. 136. 2d ed., Paris, 1863.

whole body itched excessively, so that sleep was almost impossible. The bullæ were small, not exceeding the size of a hazel-nut, and the skin became darker and the seat of a viscid secretion. These phenomena in each instance continued in increasing severity until delivery, when they gradually disappeared, to return at each conception with greater intensity. After delivery there were several slight outbreaks of the disease, but she was entirely well one month after the birth of the child. In the interval she was perfectly well, and the children were healthy.

Wilson,\* under the title *herpes circinnatus bullosus*, mentions two cases of a bullous eruption, "associated with pregnancy, beginning with conception and ending with the completion of parturition." I quote his short account: "Both cases were remarkable for perpetual irritation and intense pruritic suffering. The bullæ were of the flat and foliaceous kind, some filled with limpid serum, and others with a muco-purulent fluid, and were associated with moist excoriations, thin crusts, papulæ, and pruritus. In one patient the cutaneous disease was the first intimation of pregnancy; the disease continued during the whole period, accompanied four or five pregnancies in succession, and completely exhausted her health and strength. In other respects and in the intervals she was a strong and handsome woman. The other patient came before us at the age of 36; she had nine children; the eruption made its appearance with the fourth pregnancy, and has accompanied every pregnancy since. When parturition was

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\* On Diseases of the Skin, London, 1867, p. 294.

over the eruption ceased; but on the last occasion, nine months ago, it remained, and has now assumed a permanent character. She thinks, moreover, that at the present time she may be in the family-way again. In both cases the eruption was accompanied with sympathetic gastric disturbance, and with a duskiness and cachexia of the skin."

J. L. Milton \* recorded, shortly after, a parallel case, giving Wilson's designation, *herpes circinnatus bullousus*, which was afterwards, in transcribing the case to his book, † changed to *herpes gestationis*, which name we have adopted. Milton's case was in brief as follows:

A healthy-looking woman, aged 45, in the fourth month of her eighth pregnancy, began to be distressed by a most intense itching, smarting, and heat of the skin of the arms and forearms, upon which parts a vesicular and bullous eruption soon developed. When first seen, nearly the whole surface of the inner part of the right arm and forearm, and a somewhat less but still very considerable extent of the left arm and forearm, were covered with vivid red, very slightly elevated patches, varying in size from that of a bean to that of the base of a split walnut. On most of these patches were vesicles about the size of a small pea, very rarely solitary, and generally in groups of two to four. They were mostly prominent and pointed in shape, but some were oblong, with the ends apparently communicating. They were in all stages, some quite tense from accumu-

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\* Journ. of Cutan. Medicine, Vol. I., No. 3, p. 311.

† The Pathology and Treatment of Diseases of the Skin, London, 1873, p. 205.

lation of limpid serum ; others just rising. She noticed none of the vesicles before the previous day, though the patches had formed a day or two prior to this. Her face had a peculiarly distressed look, and she complained of utter sleeplessness, occasioned by the intense itching, smarting, and heat.

A week later the complaint had gained ground greatly ; there were now at least fifty patches on the right arm, all bearing vesicles varying in size from a pea to a haricot-bean, some also coming on the outside of the arm. The disease continued to increase, so that a few days later the front part and sides of the abdomen and the inside of the thighs were almost covered with the same red patches, and in two or three days more almost the whole surface of the body, except the back, face, and hairy scalp, was involved. The irritation was most distressing and sleep impossible, pulse 120. She was given a supporting diet and stimulants, and had the entire surface enveloped in wrappings of mutton-suet.

By April 8th, twenty-four days after first seen, vesication had pretty well ceased, the irritation of the skin was greatly lessened, and she could obtain some refreshing sleep. The improvement was of short duration ; many of the symptoms returned and persisted until premature labor took place—nearly three months in all—when she was delivered of a foetus between six and seven months old, which was stated by the medical gentlemen who attended her to have been dead some time. Directly after her confinement, the eruption began to relapse, and by the third day she had a toler-

able crop of large vesicles on each arm, while many of the spots on the legs and trunk became speedily covered with dry, yellow crusts. These soon abated again, and two weeks later she was almost entirely free from them and had no relapse.

This woman had had similar attacks twice previously, with her first and fifth pregnancies; all three attacks began at about the same period, ran the same course, and disappeared spontaneously after parturition, without having been influenced much by treatment. The second attack was more severe than the first, and the third worse than the second. The disease occurred first in 1853, when she was thirty-one years of age—the child lived; the second eruption at her fifth gestation was attended with a still-born child, as well as the one above detailed. There were intervals of seven years between each of the eruptions, and two living children born between each, without the mother having any eruption with them.

“From the very outset,” says he, “I had expressed a decided opinion as to the inefficacy of any treatment whatever, and certainly I never observed that the medicines prescribed exerted the least real control over the progress of the complaint.”

The next similar case which I find is given by Dr. Klein,\* of Jicin. The patient, 32 years of age, in the beginning of the 7th month of pregnancy, noticed on the upper extremities and the thorax a number of vesicles the size of millet-seeds, the contents of which were

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\* *Allgemein. Med. Zeitung*, Vienna, Aug. 6, 1867; quoted in *Jour. Cutan. Med.*, July, 1868, p. 203.

transparent. She took a few baths, but grew worse under their influence, and the vesicles formed with such rapidity and in such increased numbers, that almost every part of the body was very soon covered with them, and they also so increased in magnitude that by this time they varied in size from that of a walnut to that of a hen's egg, and the contents, clear at first, soon became turbid. At the same time, she suffered very severely from pains, and her strength declined visibly. A supporting treatment was given, with iron, quinine, wine and beer, the affected surfaces dusted with lycopodium, starch, and morphine, and the obstinate constipation relieved by clysters.

This state lasted two months, until confinement, when she at once began to mend rapidly; the vesicles, which still appeared, grew fewer and fewer in number, while the skin on the parts which had been invaded became healthy and the bed-sores closed up. In fourteen days she could leave her bed, and within a few weeks had entirely recovered. The child, which was healthy, was cared for by another person. The patient had previously borne two strong, healthy children, and had enjoyed good health during her pregnancies.

Hebra\* gives an account of another case of the same nature, which he calls pemphigus. He says:

Several years ago, a young woman came to Vienna from Russia, having suffered from pemphigus during three successive pregnancies. On the first occasion, it appeared during the fifth month, and disappeared after delivery, and on the second, it continued one month

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\* Wiener Medicin. Wochenschrift, No. 48, 1872.

after delivery. On the third, it did not thus disappear, but passed into a state of chronic pemphigus, and this it was that brought her to Vienna. Under the use of the baths of Vöslau and other means, she completely recovered. During the first month of the next pregnancy, some bullæ appeared on the lower extremities, and afterwards, as in the former pregnancies, extended to the arms. Loss of appetite and sleep reduced her to much the same condition she was in when she first came to Vienna. After delivery she soon lost her pemphigus. On two subsequent occasions she became pregnant, the pemphigus reappearing in both and lasting for some time after delivery.

The peculiar features of this remarkable disease, as gathered from the preceding clinical histories of nine almost precisely similar cases, recorded by eight observers during a period of twenty years, may be thus summed up :

1. There is an affection of the skin directly dependent upon the gravid state of the uterus, which may make its appearance at any period of gestation up to the seventh month, and generally continues until the organ is emptied of its contents, and has in a measure resumed its former state ; this eruption is very apt, moreover, to recur at each successive conception. (See Table of Cases.)

2. The cutaneous manifestations are chiefly an intense irritation, consisting of burning, itching, or stinging, and sometimes pains, with the development of erythema, papules, vesicles, and bullæ up to the size of a hen's

egg, the majority of the blebs, however, seldom surpassing in size a large bulla of herpes. These vesicles are commonly in groups, but do not follow any definite nerve-tracks, appearing first generally on the extremities and afterwards involving the larger part of the body. Exhaustion may ensue from the cutaneous irritation, but the disease is non-febrile.

3. The eruptive disease does not terminate at once after delivery, but slowly retrogrades, by the development of fewer and fewer vesicles at increased intervals, until the disposition thereto ceases entirely. An outburst of greater or less severity is most likely to happen on the third day; it is rare for any manifestations of the disease to remain a month after parturition.

4. This affection is sometimes accompanied or followed by other neurotic manifestations, as erythema, urticaria, and neuralgia, which may continue in the interval of conception, while in many instances the patient experiences perfect health in the *interim*.

5. This eruption has occasionally been the first indication that impregnation has taken place.

6. The majority of the cases have been uninfluenced by treatment, relief occurring only on the emptying of the uterus.

7. The children are not, as a rule, affected by the eruption in the mother, although in one case it was accompanied in two instances by a still-birth; here, however, the first eruption was followed by the delivery of a living child, whereas the second conception gave a still-born child without any maternal eruption.

## HERPES GESTATIONIS.

No. of Preg- nancy.	GIBERT, 1840. Pemphigua	CHAUST, 1852. Pemphigus pruriginosus.	HARDY, 1883. Pemph. prurig. Aged 36.	WILSON, 1867. Herpes circinnatus bullosus. Aged 30.	MILTON, 1867. Herp. circin. bull. Aged 46.	KLEIN, 1868. Pemphigua.	HERBA, 1872. Pemphigua.	BULKLEY, 1873. Herpes gestationis. Aged 32½.
I	..... ..... ..... ..... ..... .....	Appeared in fifth month of gestation, and lasted to delivery.	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	Boy child, 1853. 1st eruption.	Two strong healthy children.	Appeared in 5th mo. Girl child, lived.	Appeared in 7th mo., lasted to end. Relapse two or three days after de- livery.
II	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	Stillborn child, 1854. No eruption.	..... ..... ..... ..... ..... .....	Appeared in 3d month and contained one month after delivery.	Appeared in 5th month. Disap- peared under treatment, slight relapse on 3d day.
III	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	Appeared few weeks after conception, and lasted to delivery.	..... ..... ..... ..... ..... .....	Boy child, 1855. No eruption.	Appeared at begin- ning of 7th mo., lasted to end.	Stillborn boy. Passed into state of chron- ic pemphigua.	..... ..... ..... ..... ..... .....
IV.	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	ditto.	Accompanied four or five pregnancies in succeesion, and continu- ed during the whole period.	Boy child, 1868. No eruption.	..... ..... ..... ..... ..... .....	Appeared during first month. Healthy boy.	..... ..... ..... ..... ..... .....

V.	..... ..... .....	ditto.	..... ..... .....	ditto.	Stillborn child, 1860. 2d eruption.	..... ..... .....	Lasted some time after delivery.	..... ..... .....
VI.	..... ..... .....	ditto.	..... ..... .....	ditto.	Girl child, 1861. No eruption.	..... ..... .....	Lasted some time after delivery.	..... ..... .....
VII.	..... ..... .....	ditto.	..... ..... .....	ditto.	Girl child, 1863. No eruption.	..... ..... .....	..... ..... .....	..... ..... .....
VIII.	..... ..... .....	ditto.	..... ..... .....	ditto.	Stillborn child, 1867. 8d eruption. Commenced in fourth mo. Miscarriage 6th—7th mo.	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....	..... ..... ..... ..... ..... .....
IX.	..... ..... .....	ditto.	..... ..... .....	ditto. Remained after this confinement for nine mos.	..... ..... ..... ..... .....	..... ..... ..... ..... .....	..... ..... ..... ..... .....	..... ..... ..... ..... .....
X.	..... ..... .....	ditto.	..... ..... .....	.....	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....

The questions now arise, what is the nature of this disease, its nosological relations, and what its appropriate treatment? I can find but very little in the gynæcological works at my command, or in the periodical literature with reference to the relations of the skin and the uterus, other than brief mention of the pruritus and chloasma attending the pregnant state, and also certain disorders of the female organs. That a very intimate connection exists between the skin and the genitals is evident from many circumstances.

Thus, all recognize the changes which take place in the cutaneous envelope as puberty approaches, the growth of the pubic and axillary hairs in both sexes, the changes of color and expression, with the more abundant development of adipose tissue in females, and the appearance of the beard in man. We are equally aware of an arrest of sexual development or of an improper performance of the functions connected therewith, by the chlorotic pallor or darkened skin beneath the eyes, and the clammy hands and acne-sprinkled faces of those misusing these functions. Not less striking are the phenomena observed in the lower animal kingdom, the development of the antlers in the stag, the increase in brilliancy of plumage of birds, and changes in the fur of animals during seasons of sexual excitement.\*

Pathologically, we observe *acne punctata* and *simplex* appearing in a large share of the cases early in life, at about the time of the first appearance of the menses in girls, and puberty in boys, and again in the decline of

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\* Dr. J. M. Hyde, *Chicago Med. Jour.*, March, 1873.

the sexual function we often meet with *acne rosacea* at about the time of the menopause. Many cutaneous diseases are worse at the season of the monthly period.

From the above analogies it might be expected that the grave and important changes in the uterus during pregnancy would be reflected upon the skin, and this we find to be the fact. Physiologically we find the skin around the nipples darkening and the sebaceous glands developing, also on the abdomen\* "a brownish line is observed on the skin, extending from the pubis to the umbilicus, where it mostly stops, though it sometimes extends beyond it in dark brunettes."† Accordingly one of the most common of the abnormal appearances on the skin during pregnancy is *chloasma*, namely, a brown discoloration of the skin resembling this physiological pigmentation, occurring chiefly on the face, and there most commonly on the forehead. Naturally this will not disappear very soon after delivery, but gradually fades and is then quite easily removed, to recur, however, in successive gestations. Of this I have seen repeated instances. It must be remembered that by *chloasma* is to be understood a true chromatogenous disease, and one clearly to be distinguished from the *pityriasis* or more properly *tinea-versicolor*, a parasitic affection found on the trunk, seldom on the head. True *chloasma gravidarum*, or *uterinum*, as it has been called, differs from the *tinea* in being not at all scaly, except when irritated, nor can scales be scraped off, as the pigmentation is seated in the rete Malpighii, it is

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\* Graily Hewitt, *Dis. of Women*, Phila., 1868, p. 297.

† Cazeaux, *Phila.*, 1866, p. 141.

not at all elevated above the surface, and the margins fade sometimes insensibly into the surrounding skin. Dr. H. G. Hand\* reports a case of very deep bronzing of the skin of the whole body to the color of dark coffee, which commenced three and a half months before delivery at full term, and gradually faded thereafter. Montgomery† tells of a lady who in her first pregnancy observed brownish spots or patches on the sides of the forehead and temples, which she at first mistook for soils on the skin, but they remained permanent; and when she became pregnant again a further addition was made to them, so that after several pregnancies the dark marks extended so far down each side of the face, that the lady was obliged to dress her hair in such a way as to cover them. The most remarkable circumstance in this case was the permanence of the marks, which almost always disappear after delivery. Lacet relates the case of a woman whose face, in three successive pregnancies, became quite black.

Prominent among the effects of pregnancy on the economy are those referable more or less directly to the nervous system, as facial neuralgia, cephalalgia, chorea, palpitation of the heart, mania, etc.,‡ together with anomalous affections of the organs of sense, especially of sight and hearing, altered sensibility of various parts, occasional spasms, slight attacks of singultus,§ and pruritus of the integument. The last affection, which principally interests us, is either local and con-

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\* North-Western Med. and Surg. Jour., Jan., 1873.

† Signs and Symptoms of Pregnancy, Phila., 1839, p. 103.

‡ Tyler Smith, Lancet, March 1, 1856.

§ Copland's Dict. of Pract. Medicine. Vol. III., p. 504.

fined to the region of the genitals, or it may be general, so that the whole body is distressed. Of the local variety we shall say but little, as it is well recognized and described with its appropriate treatment in most of the works on obstetrics and diseases of women. It very frequently depends on local causes entirely disconnected with pregnancy, as ascarides, pediculi, vulvar folliculitis, an acrid condition of the sebaceous secretions, vascular tumors of the urethra, etc.,\* although Meigs† states that he judges that ninety per cent. of the instances he had met with were in women *enceinte*. General pruritus is less common, but is more or less a distinct disease dependent on the gravid state of the uterus, inasmuch as it disappears completely at once upon parturition. Cazeaux relates a case published by Maslieurat-Lagemart, of "a lady, who in eight successive pregnancies was afflicted with itchings so violent as to produce premature labors. On four occasions they began in the sixth month, twice at eight months and a half, and twice in the seventh month. They appeared almost instantly over the entire cutaneous surface; the legs, thighs, genital parts, the whole trunk, the neck, face, scalp, were all affected; nothing escaped but the palms of the hands, and even they were invaded at a later period. So severe was the irritation that the violent rubbings of the poor sufferer excoriated the skin. Hardly was she delivered when they vanished entirely." He himself had seen three cases of general itching which yielded quite promptly to alkaline bath (℞ Potass. car-

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\* Graily Hewitt, *Dis. of Women*, Phil., 1868, p. 665.

† *Woman and her Diseases*. 8d Edit. Phil., 1854, p. 93.

bonat.  $\frac{3}{4}$  v. to the bath). Hebra\* records the case of a lady who during the first five months of five successive pregnancies suffered from so violent a pruritus cutaneus that her rest at night had been disturbed, her mind kept in constant irritation, and her nutrition impaired, while her skin presented a scratched appearance usually seen on those suffering from epizoa. I have very recently had under my care a distressing case of pruritus connected with pregnancy, where the shoulders, arms, thighs, and lower part of the trunk were the seat of such intense itching that rest seemed impossible; upon the subsidence of this under treatment, persistent hoarseness ensued, not due to cold, which gives no annoyance save the inability of speaking above a whisper. The loss of voice is evidently nervous, it having occurred with the preceding pregnancy, when it lasted to delivery and disappeared spontaneously thereafter, which result she expects to happen again with the expiration of gestation yet a month or two distant.

Such then being the nervous phenomena, with many others, excited in certain instances by the impregnated uterus (and here let me say that the pigmentary anomalies described above may also be referred to perverted innervation, as appears to be certainly the case in leucoderma or vitiligo), let us see how a farther nerve-irritation may result in true cutaneous lesions as in the cases of herpes which form the basis of our article.

The nerve origin of many diseases of the skin has now

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\* Wiener Med. Wochenschrift, No. 48, 1872.

passed beyond the region of conjecture, and although it would be out of place here to study the mode of production of the lesions, we may mention some of the results observed and their relation to each other. Dr. Woaks \* has collected numerous instances where injury or shock was associated with neuralgic symptoms and alterations, to varying degrees, in the skin supplied by the nerves implicated. Erythema, eczema, herpes, and ulceration were observed thus connected, and herpes zoster being especially studied with reference to shock from the impression of cold, the conclusion was arrived at "that, owing to the suspension of the regulating power exercised mainly by the sympathetic nerves over a given artery, effusion of fluid takes place from its ultimate ramifications. These being distributed to the skin on the one hand, and to the texture of the sensory nerves on the other, the effusion so caused produces the herpetic rash in the former and pain from mechanical pressure in the latter." Handfield Jones † recognizes vaso-motor nerve-paresis as a cause of many affections of the skin and instances of zona, pemphigus, hyperidrosis, urticaria, and hyperæmia connected with and evidently dependent on weakened and relaxed nerve-power. This neuro-pathology of some skin diseases is recognized also by very many, in text-books and elsewhere. Now the human system can hardly undergo any greater strain upon its powers, and those of its nerve elements especially, than is afforded by pregnancy, which latter is evidenced by the manifestations

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\* Journal of Cutaneous Medicine, Vol. I., No. 3.

† Ibid., Vol. II., No. 6.

of nervous disorders we have alluded to, and which might be inferred from the fact that the nerves of the uterus are enlarged during pregnancy,\* as if to meet this requirement. Consequently we are not surprised to find cutaneous disorders especially attributable to nerve-paresis occurring repeatedly during that state. As before stated, the simplest and most common derangement observed is simple pruritus, or irritation of the sensory nerves of the skin. When, now, there is still greater nerve irritation, paresis of the vaso-motor nerves ensues, causing hyperæmia, and fluid is poured out in varying quantity, giving rise to urticaria, eczema, herpes, and pemphigus, according to its extent and individual idiosyncrasy, the first being the least expressed form, and the last the greatest, of confined and limited exudation.

These forms of skin-disease are occasionally met with during and dependent on the pregnant state, although the recorded cases are few. Hebra mentions having seen them thus connected, and McCall Anderson,† quoting Hebra, says of eczema: "Its occurrence is not unfrequently favored by pregnancy, in which case the hands, the feet, and the neighborhood of the genital organs are the parts most frequently affected. So uniformly does this occur on the hands of some females when they become pregnant, that they can tell more certainly that they are with child by the appearance of the eczematous eruptions than by the cessation of the menstrual discharge." I find, on inquiring also among

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\* Stricker, *Manual of Histology*, p. 616.

† *A Practical Treatise upon Eczema*, London, 1867, p. 42.

some of the obstetric practitioners in this city, that the observance of eczema accompanying each pregnancy is not at all uncommon.

Other eruptions besides those mentioned above, and which have not been demonstrated to depend on nerve influence, are frequently seen attending each pregnancy; thus, I have at present a patient under my charge in whom an acne rosacea has developed about the mouth and chin with each pregnancy, also one who has had psoriasis since early childhood, in whom the disease is always worse during gestation. McCall Anderson\* gives a case of a woman in whom psoriasis appeared while nursing each of three male children, it being absent in the interval and while nursing two female children; it appeared about the sixth month of suckling, and vanished soon after weaning. Three cases of psoriasis during lactation are also recorded by Dr. M. H. Henry.† These are all evidently due to the debility caused by lactation, and cannot be included in our argument, but are inserted here for completeness.

To return to the affection with which we commenced, *herpes gestationis*. The analogies and illustrations above cited, together with the clinical histories of the nine cases, in seven of which we have the history of recurrence with each gestation and disappearance on parturition, as a rule, are to us sufficient proof that the eruption is essentially connected with and dependent on the gravid state of the uterus, and is, moreover, a neurosis.

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\* Psoriasis and Lepra, London, 1865, p. 14.

† Am. Jour. Syph. and Derm., Jan., 1871, p. 49.

In order to establish more clearly the individuality of the affection we are studying, we must briefly notice several eruptions which have been described, which resemble this in a measure, but differ essentially in many points. And, first, a peculiar one affecting pregnant and parturient women, of which Hebra\* had seen only five instances, but one of the five cases surviving. The eruption, which he terms *impetigo herpetiformis*, was characterized by pustules, filled with pus at their first appearance, which affected a peculiar mode of grouping and peripheric extension. In almost every case the efflorescences appeared first on the inner surface of the thighs, partly in small groups, partly isolated. Successive crops immediately followed, extending towards the periphery in a circular or iris form, so that in a few days the whole body was involved. While the pustules in the centre of each group became covered with flat, dark-brown crusts, new ones filled with pus were being constantly produced at the circumference, resembling *herpes iris circinnatus*. The affection throughout its whole course was attended with intense fever, dry tongue, and great prostration. In three of these cases this reproduction of pustules continued with more or less rapidity until the patient died; while in the other two, after several weeks' duration, they dried up, the thick scabs finally falling off and leaving the skin beneath healthy, but strongly pigmented. Some of the pustules, instead of drying, especially at the bends of the joints, were converted into a grayish, stinking mass, which, resting on a red and moistened

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\* Wiener Med. Wochenschrift, No. 48, 1872.

base, assumed an eczematous appearance. Each outbreak of pustules was preceded by a chill, with a febrile reaction lasting some days. Of the five women, three had been confined from two to five weeks before admission to the hospital, and two came in during the last month of pregnancy. The eruption appeared the same after delivery as before. The necropsies of the four that died showed no certain cause of death; there were no evidences of syphilis.

In the absence of all other etiological data, and from the fact that all the cases occurred only in pregnant and parturient women, and taking into consideration other diseases of the skin which appear under the same conditions, Hebra concluded that the eruptions in these instances were dependent upon a diseased change in the genital apparatus.

It is evident that our case and the similar ones we have detailed are not the same as those of Hebra, although both have certain features in common, as being diffused inflammatory eruptions accompanying the pregnant state; but in the latter the eruption was from first to last pustular, it commenced on the thighs and trunk, whereas ours, always vesicular, began peripherally; Hebra's involved even the neck, face, and hairy scalp, which were free in our cases. In Hebra's cases no change occurred in the eruption on the emptying of the uterus, whereas the relief thus obtained was great and almost immediate in every instance with us. Finally, but one in the five of Hebra's cases recovered, while the affection we have described did not affect life or health in the interval.

Nor do our cases correspond to those detailed by Henry Contagne\* in his monograph on *Acute general febrile herpes*. His cases were all in males, aged respectively 17, 18, 20, and 39 years; the course of the disease was short, lasting from eleven to twenty-one days; and in but one instance was there a recurrence of the eruption, and that only once.

Neumann† describes, under *herpes*, a disease somewhat resembling ours but still very different; he had observed but five cases of it, four males and one female. It began with small papules, which after a few days increased peripherally, the apex soon becoming vesicular. These were seated upon infiltrated patches on whose margin new papulo-vesicles continually formed, while the centre dried up, occasionally with a vesicle produced in it.

By this means in two cases almost the whole body was covered with gyrate forms produced by the confluence of the margins of these vesicle-bearing patches. On the palms and soles the vesicles bore the greatest resemblance to eczema; on some parts of the body the crusts formed were very thick and adherent. The disease lasted many months, and in one instance two years: it was attended with severe itching. An almost precisely similar case is described by Ad. Lafaurie,‡ and an excellent plate of the same is given. It occurred in a girl twenty-four years old, lasted many months, and

\* De l'Herpes Généralisé Fébrile, Paris, 1871.

† Lehrbuch der Hautkrankheiten, 3d edition, 1873, p. 188.

‡ Ueber die Unzulänglichkeit der bisherigen Pemphigus-diagnose, Würzburg, 1856, p. 58.

was accompanied with intense burning and itching; he called it *herpes pemphigodes*. But our eruption presents many features widely different from this affection.

*Acute febrile pemphigus* has been described by some\* and denied by others,† in adult life, but the symptoms as depicted appear to us to belong rather to herpes than the disease generally known as pemphigus.

That the affection we have described is not simply an eczema appearing in pregnant women, is certain from the histories given; there were no moist, scaling, or cracking surfaces, but simply the development of papulæ, vesicles, and bullæ, as described, which disappeared in part without exfoliation, and when pricked the vesicles subsided rapidly. No trace of the eruption remained on the parts affected, save a slight staining.

As seen from the histories, this eruption has been called pemphigus in most of the cases I have quoted, Wilson and Milton alone designating it herpes. When I first saw the case I gave the name herpes to the cutaneous manifestations present, and have been strengthened in the propriety of the diagnosis since my studies on the subject. At no period during the attack which I witnessed were there bullæ more than half an inch in diameter, and that very rarely, whereas by far the larger part of the eruption consisted of papules and vesicles resembling eczema, but, as before stated, the

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\* *Annales de Dermatologie et de Syphiligraphie*, 4th year, No. 6, p. 401.

† *Gintrao. Cours Théorique et Clinique de Pathologie interne*, vol. 4, p. 712.

catarrhal element was wanting, and we were forced to the diagnosis of herpes. Then again, the efflorescences were in groups, mostly of circular form, which Neumann\* asserts is "the only constant sign pathognomonic of herpes." The term herpes must, therefore, receive a wider signification than is accorded it in some text-books, and be made to include a vesicular eruption involving the whole body, and from its proven nervous origin cannot rightly be restricted to the herpes zoster, shingles or *zona*, as McCall Anderson † has recently attempted to do. We claim a species of general herpes but slightly if at all febrile, commencing on the hands and feet, attended with very considerable burning, itching, and stinging, which while acute is prolonged several months, it may be, by the fresh development of its elements, and which persists, as a rule, until the cause is removed, and that cause is the gravid state of the uterus. This eruption, moreover, has a very decided tendency to recur with each successive gestation. The name, *herpes gestationis*, we have adopted from Mr. Milton's work, as embodying the clinical characters of the eruption, and signifying at the same time the sex and state of body in which it appears.

*Treatment.*—In most of the instances of the eruption which we have collated, the disease progressed to the end of pregnancy without being influenced in the slightest degree by treatment. Our case proved an exception in being relieved almost completely at the expiration of one month's treatment, so that the last

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\* *Loc. cit.*, p. 191.

† *On the Treatment of Diseases of the Skin*, London, 1872.

three months of gestation were passed in comfort; moreover, there was almost no relapse after confinement, only a very few scattered vesicles appearing, which gave no annoyance.

The indications for treatment seemed to be for soothing antipruritic local applications, and powerful tonics, especially those directed to the nervous system. The local remedy employed was the "*Liquor picis alkalinus*," which we have before presented to the profession.\*

℞	Picis liquidæ.....	3 ij.
	Potass. causticæ.....	3 i.
	Aquæ font.....	3 v.

M. Use diluted one teaspoonful to four ounces of water, followed by inunctions of mutton tallow. The strength of the diluted wash was doubled later, and may be used in far greater strength. This afforded very great relief, and, although other remedies were tried, was returned to as the best, indeed, answering all requirements. The recumbent posture taken after the disease had lasted two weeks undoubtedly assisted the cure and saved much suffering. The internal medication consisted of pills of iron, quinine, and strychnine from the beginning to the end, interrupted only on the occasion of one or two exacerbations, when a diuretic mixture, composed of acetate of potash, nitre, taraxacum, and rumex, caused immediate amelioration of feelings. Arsenic and cod-liver oil, added at a later

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\* Archives of Scientific and Practical Medicine (Brown-Séguard), February, 1873.

period on the suggestion of Dr. Draper, contributed their quota to the result.

We lay considerable stress upon a dietary element of treatment which was begun shortly after the appearance of the disease, and which was continued till long after confinement, namely, the taking of a considerable portion of oatmeal just before retiring every night; this was replaced by bread and milk, later. Of this plan of nourishment we can speak in the highest terms, using it very frequently whenever there is a low state of health and impairment of nutrition; the additional nutriment in a digestible form and at this time of day has with us given excellent results. Other cereals answer very well, as cracked wheat, etc., and a little wine or milk may be added. I find this very acceptable to patients, and that it rather increases the appetite for breakfast than otherwise.

None of the writers we have quoted mention any treatment for the disease in question, and our results were so thoroughly satisfactory that in case of a return of the affection, or in another case, we should follow the same general plan of treatment.

It is hoped that other observations will follow on this affection, by those who are largely occupied with obstetric practice.