The Lettsonian Lectures

ON

THE CONDITIONS WHICH MODIFY THE CHARACTERS OF INFLAMMATIONS OF THE SKIN, AND THEIR INFLUENCE ON TREATMENT.

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LECTURE II.—(Abstract).

THE PERSONAL FACTOR.

THE lecturer pointed out that in his previous lecture he had discussed the influence of the microbe only, but in the majority of cases the state of the man when he encountered the microbe was equally important. Even age was often an important factor. Thus pus cocci easily infect children, and free suppurations are therefore often induced in them, and if they are not treated at an early stage the cocci may penetrate deeply, and infect the general system. In a newborn infant a surface lesion would probably take the form of a bulla, with clear contents; but in older children the vesicular and pustular forms of impetigo contagiosa usually occur. Adults often resist it altogether, or the lesion may only appear as an excoriation; and the lecturer did not remember ever to have seen a typical impetigo contagiosa in a very old person. Ecthymatous sores did, however, occur in severely itching diseases, like pediculosis corporis; but though deep they were seldom abundant. They were, however, vulnerable to both boils and carbuncles, and the latter might spread to a fatal extent. Suppuration in the aged was also liable to go on to gangrene. The latter might also occur without previous suppuration, as might be seen frequently in ophthalmic herpes zoster.

Gangrene was also frequent in infants in multiple patches, which might supervene upon any pustular eruption, such as a miliaria, but the most common cause was varicella, and it occasionally developed on recent vaccination lesions. It was supposed to be due to the bacillus pyocyaneus. This liability ceases after the age of 3 years. Formidable as these cases may be, and many are fatal if allowed to run their own course, the extension of the gangrene can be checked if at an early stage injections of carbolic acid solution are made in the neighbourhood of each lesion, as in the treatment for carbuncle. These latter are rare in the young, fairly common in middle age, and still more so in the old. Boils, on the other hand, have no age restrictions. The predisposing influence of sewer-gas poisoning and glycosuria on these suppurative diseases is well known, and glycosuria also predisposes to gangrene. Nevertheless, in a large number of cases no special departure from health is found in recurrent boils, unless they are so large or so numerous as to excite septic fever from their own toxins.

Old age is of itself a strongly disposing factor for ordinary eczema, and it often spreads rapidly and extensively in a senile skin, partly from the defective nutrition of the skin itself, partly from the defective elimination of the tissue-worn viscera, especially the liver and kidneys. The indications for treatment, therefore, are to assist these worn-out organs as far as our means permit. On the other hand, the seborrhoeides are rarely seen in old age. Attention was drawn to the congenitally dry skin as a predisposing cause of eczema, and the importance and mode of recognizing slight degrees of it pointed out, and also that the treatment thereby suggested was the administration of thyroid extract and the local application of oily remedies. On the other hand, hyperidrosis of the palms and soles also predisposed to inflammation of those parts with keratosis sometimes highly developed. Heredity plays an important part in this and other tissue peculiarities to certain forms of inflammation, such as psoriasis.

TOXIN ABSORPTION.

Turning now to other causes the lecturer said that his experience led him to regard toxin absorption as one of the most powerful factors in the production of skin inflammations. While he regarded auto-intoxication from the intestines as the most frequent source of these toxins and ptomaines he thought it probable but more difficult to demonstrate that

absorption of injurious substances from other viscera might also occur, he related cases in support of this view and also brought forward cases suggesting that where dermatitis appeared to be excited by sudden chills to the surface, the explanation was that these produced sudden contraction of the surface vessels followed by dilatation and that during the latter toxins were absorbed from the intestine and other organs and were distributed peripherally and excited eruptions the particular kind apparently depending more on the individual than on the toxin.

THE NERVOUS SYSTEM.

The influence of the nervous system was admitted in many of the examples, the toxins probably producing the eruptions in many cases through their action on the vasomotor nerves both central and peripheral and cases in which nerve shocks were the immediate cause of eruptions were cited, but while its influence is important it is in great part indirect except in such a disease as herpes zoster, which might be the direct outcome of either central or peripheral nerve lesions, though those due to inflammation of the nerve ganglion of the posterior root were more common than those from lesions of other parts of the nervous system. Apart from these, the diversity of the skin lesions in apparently similar nerve lesions suggested that the nervous influence was indirect, and required some other exciting factor. Further, in most cases of lesions of the nervous system there were no skin lesions at all. At the same time, cases of the exanthemata were related showing that if all innervation was abolished no inflammation could occur. That, if cerebral influence only was abolished, that the eruption was violent and severe, that in partial vasomotor injury the eruption was slight and perhaps fugacious, while in partial cerebral or spinal damage the eruption would probably develop at the defectively innervated part first and most severely. The protective influence of the nervous system was exemplified in the liability to bullae, perforating ulcer, and other lesions in the late stage of the nerve form of leprosy.

The influence of the nervous system on the distribution of eruptions was much greater, and many examples of such influence were given where the eruption was in the domain of one or more nerves both in congenital lesions such as ichthyosis-hystrix, naevi, etc., as well as in dermatitis, as in zoster, and in some cases of eczema, lichen planus, etc.

Still more important was the distribution in vasomotor areas, of which the bust and arm distribution of xeroderma pigmentosa was a good example, and the advantage of counter-irritation in recurrent inflammations over the governing centres such as the cervical or lumbar enlargement was emphasized.

In speaking of pregnancy as a cause of eruptions, chief stress was laid on the variety of dermatitis herpetiformis known as "herpes gestationis," and its general behaviour in regard to pregnancy, parturition, and lactation was discussed; and it was shown how in some cases it became the earliest sign of pregnancy, and how after parturition there was frequently an exacerbation of explosive violence, followed by a gradual decline in the severity of the successive outbreaks, and finally, complete subsidence occurred in the majority of cases.

THE INFLUENCE OF SEASONS.

This was shown as regards erythema multiforme, psoriasis, urticaria, and prurigo, and then a description was given of recurring summer and winter eruptions which begin in early childhood and persist to adult age, and then usually subside. The type called by Hutchinson "summer prurigo" was especially described, and it was pointed out that a precisely similar eruption might occur in winter, but much more rarely, and that in those cases ointments, always increased the irritation, while astringent lotions, especially those of the organic silver salts, gave most relief. It was also shown that while the general behaviour as regards exciting causes, evolution, duration, and eventual subsidence was very similar, the morphology of these eruptions varied considerably, and that they might be papulo-erythematous, papulo-vesicular, and vesiculo-pustular, but that pale red conical papules, with or without a little clear fluid at the apex, were the most common, while in hydroa aestivalis with its sub-variety, vacciniformis, the lesions were scar-leaving bullae which led to great disfigurement and even mutilation which simulated lupus vulgaris. The whole class might be regarded as angioneuroses with a congenital vulnerability of the skin something like that of epidermolysis bullosa.

DRUG ERUPTIONS.

These were chiefly discussed as regards bromide and iodide eruptions, which are the only ones which are distinctive, other drug eruptions not being recognized as such unless it was known that one of the possibly eruption-exciting drugs had been given. Bromide and iodide agminated eruptions could always be recognized, and it was pointed out that while in infants they might occur from very small doses even through suckling when the mother was taking the drug, in adults if an eruption occurred from a moderate dose, it was an indication of defective elimination due to either heart or kidney disease or both. It was also pointed out that both bromide and iodide eruptions often attacked scar tissue and the fact that their diagnosis was missed sometimes because they often did not come out one or two weeks or more after the drugs had been stopped. This was explained by their having a diuretic action which ceased soon after the drug was stopped, and then the salt which was left in the tissues produced the eruption.

THE INFLUENCE OF GOUT.

The lecturer said he had left this to the last because there was no need to emphasize a factor which in the past had been overrated both by the doctor and the public. But while he did not doubt that gout was a strongly predisposing cause of inflammation of the skin, it was not possible to diagnose gout by the skin lesion alone; moreover, experience often showed that frequently when we had done our best to neutralize the supposed uric acid element by alkalies and other antigouty remedies, the eruption was still too often recalcitrant, and he believed that in a large proportion of cases it was again another example of toxin absorption from the intestine. The tendency of gouty persons to chronic intestinal catarrh, and the readiness with which intestinal fermentation was set up being the real factors requiring attention, intestinal disinfectants of the salol class, and a dietary which would not be likely to disagree and produce further intestinal fermentation were the real indications.

CASE OF APPARENT SECONDARY ABDOMINAL PREGNANCY IN A RABBIT AFTER PRIMARY RUPTURE OF THE UTERUS.

By KURT KAMANN, M.D.,
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At the necropsy on a rabbit, which had been used for experimental purposes, a complete fetal sac was found in the abdominal cavity containing a full-time fetus which had only recently died. The sac was attached to a very vascular portion of the great omentum which had been drawn out in the form of a pedicle.

The placenta was situated on the wall of the sac opposite its point of attachment to the omentum, which was the only means of connexion between the fetal sac and the mother. The internal genital organs lay at some distance from the sac, and appeared to me to be free of any marked changes. At first I considered it to be a case of primary abdominal pregnancy.

In the course of further investigation, however, this hypothesis appeared to me to be untenable. On examining the uterus by means of sections (the examination being carried out in the laboratory of Professor Martin) I found that the left uterine horn, which macroscopically appeared quite smooth, on microscopical examination presented a tear in its wall, which was filled with fresh granulation tissue.

The discovery of a recent cicatrix in the uterine wall proved conclusively that the fetus had not developed primarily in the abdominal cavity, but in the uterus, and that the full-time fetal sac, together with the placenta, had passed out of the uterus through the tear in its wall into the abdominal cavity.

I believe that its secondary attachment to the omentum did not occur suddenly after a complete expulsion through an extensive uterine rupture, but that it took place during the course of a gradual protracted rupture of the uterus (*protrahierten Uterusruptur*), so that the fetal sac, becoming adherent to the omentum, received its blood supply from it before being completely expelled from the uterus.

Although one must be careful in drawing comparisons between corresponding conditions in men and animals, yet I think I shall not be wrong in comparing the uterus of the rabbit with the Fallopian tube of the human female in this case. With this proviso, I believe the events which occur in most of those cases of so-called abdominal pregnancy in the

human female may be described as a gradual rupture of the Fallopian tube and the adhesion of the fetal sac, which is slowly expelled, to the neighbouring abdominal organs.

The microscopical sections also showed an interesting condition. On the internal surface of the uterine cicatrix I found a peculiar body, which was in all probability a fertilized ovum that had failed to develop. If this were in reality an ovum, it would be justifiable to suppose that the expulsion of the fetal sac into the abdominal cavity had brought the pregnancy to an end, and that the rut in the animal had returned. This supposition was supported by the presence of comparatively recent corpora lutea in both ovaries and a condition of evolution of the uterine mucous membrane.

A complete report, extensively illustrated, of this case will appear shortly in the *Monatsschrift für Geburtshilfe und Gynaecologie*. The above presents in an abbreviated form the chief points of interest in this case.

CASE OF RHEUMATIC FEVER COMPLICATED BY CHOREA, IRITIS, AND ENDOCARDITIS: RECOVERY.

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A BRIGHT young girl, aged 12½, was first seen by me in the summer of 1901 complaining of sore throat and slight aching pains in the right knee and along the right tibia. The knee was not swollen, nor was there any sign of inflammation in the joint. The tonsils were inflamed, the fauces congested, and the tongue furred. The pulse was 90 and the temperature 99° F.

I was told that three days previously she had been caught in a heavy shower coming home from school. Suspecting the tonsillitis to be rheumatic in nature, I at once advised the child being put to bed, to be kept on a strictly milk diet, ordering a saline purge and sodium salicylate mixture in gr.x doses four-hourly.

In spite of thus trying to anticipate the disease, I found next morning the right knee joint much swollen and inflamed and also the right elbow and left ankle, whilst the temperature had risen to 101° F., and the pulse-rate to 120. For the next fortnight the case was a fairly typical one of rheumatic fever, the temperature rising on two occasions to 104° F., and both shoulder-joints becoming affected.

At the end of the fortnight the temperature had fallen to normal, and the inflammation in the attacked joints had quite subsided. The cardiac condition at this time was satisfactory, the pulse was 80, soft and regular and at no time in the illness had there been any evidence of commencing dilatation.

Three days later, whilst looking at the child's tongue, I noticed that it was tremulous: on being asked to hold out her hands above the bed-clothes and to extend her fingers, slight, purposeless, jerky movements were noted—so suggestive of chorea. The child was still on a careful diet and was taking 5-gr. doses of sodium salicylate with mxx of aromatic spirits of ammonia thrice daily.

During the next four weeks the choreic movements became more developed and continued extremely typical, involving the muscles of the face and upper extremities, but not the trunk nor lower limbs.

Whilst the movements were slowly decreasing and the child making a steady convalescence she one day complained of pain "like a needle" in her right eye and inability to see clearly. This was the starting point of an attack of acute iritis which was presumably "rheumatic" in origin, and clinically resembled that variety in the severity of the congestion, pain, and photophobia.

For some time the patient, who had borne up with wonderful cheerfulness, was very ill, and my anxiety was increased by the insidious onset of a cardiac lesion. This was first noted shortly after the onset of the iritis, in the shape of a blurring of the first sound at the apex, with an increased and irregular pulse. Later there developed a loud grating systolic *bruit* audible all over the left axilla and back, whilst the heart's impulse could be felt 1 in. outside the vertical nipple line. Cyanosis and oedema accompanied the dilatation, and for several days the issue was doubtful, but I am pleased to report that she successfully pulled through, owing not a little to her excellent nursing and her own splendid pluck.

After spending the winter in the South of England she went abroad with her mother in the spring, and I have recently heard that she has "had no return of her rheumatism and