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Fever.

BY

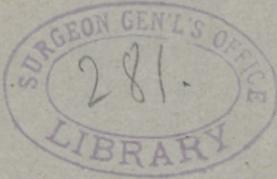
A. GUSSEROW.

Translated from "*Archiv f. Gynäkologie*," by

ROBT. T. WILSON, M.D.,

AND

WM. B. CANFIELD, A.M., M.D.



With the Writers
Compliments R.T.W.

ERYSIPELAS AND PUERPERAL FEVER.

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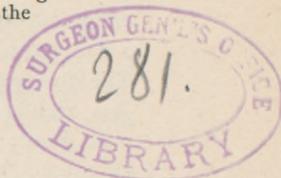
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The more the study of infectious diseases rules the medicine of the present time, the more our interest is directed toward the relation which the individual diseases bear to each other. Among the infectious diseases which, according to the old ideas, are said to stand in a decided changeable relation to each other, are, especially in England, erysipelas and puerperal fever, that if we are willing to designate the puerperal infectious diseases by this old name. The endeavor has been made to prove clinically the identity of both diseases by pointing to the fact that they appear simultaneously, and still further by showing that puerperal fever is said to be engendered from erysipelas, and *vice versa* in the case of lying-in-women. I hope I may be allowed to develop this point, since very exhaustive statements of the facts which belong to this subject are to be found in the writings of Hirsch and Zuelzer, and also Hugenberger (v. this Archiv., vol 13, p. 387) enters very thoroughly into this question. The views of the identity of both forms of disease are especially furthered by the opinions of Virchow, that, anatomically considered, the course of certain forms of puerperal infectious diseases, especially in the cellular tissue of the pelvis, resembled, or indeed is the same, as in erysipelas. On the whole, however, it must be confessed that our knowledge of the connection of these two diseases, though they indeed present anatomically and clinically such a decided different picture, is to the highest degree superficial and faulty. There are cases on record in which erysipelas appeared to an alarming extent in cases of lying-in-women as well as in other patients; this is the so-called nosocomial erysipelas; and further it is said that septicæmic conditions and pyæmia have been engendered from lying-in-women with erysipelas, and *vice versa*, from such lying-in-women erysipelas has occurred with other sick persons or with well persons—physicians, nurses, etc. There are statements enough in existence

which must make us cautious in our practice, but which are always being opposed by the greatest number of observers, and these, though widely differing, proving that there is a connection between erysipelas and septic infection. This subject, which has been treated in a variety of ways, has made great progress in recent years through the fact that Volkmann (Pitha-Billroth's *Chirurgie*, Erysipelas, p. 161) lays stress upon this point, that erysipelas as a disease, *sui generis*, must with all clearness be separated just here in the puerperium from the phlegmonous conditions,—a view which has already been expressed by others, but not so decidedly (Hirsch, etc.). (1) Hugenberger endeavored to show on the ground of an extended experience, that erysipelas in the puerperium only appeared as a dangerous complication and had nothing to do with puerperal fever. The discovery of Fehleisen, which made an epoch in the study of erysipelas, recalls involuntarily to our recollection the question, how far erysipelas stands in connection with septic infection in the puerperium (Fränkel, *Deutsche Med. Wochenschr.*, 1884, No. 14; Lomer, *Zeitschrift f. Geburtsh. u. Gynäk.* x). While I formerly had had opportunity to observe an occasional case in the institutions under my charge or in my private practice, there appeared in the spring of 1879 a relatively larger number of erysipelas cases with lying-in-women, while at the same time many cases of puerperal fever appeared in the obstetrical ward of the Charité Hospital. From the course of the cases of nosocomial erysipelas, if we are willing thus to designate the coincidence of about nine cases of genuine erysipelas, I was thoroughly convinced that there existed no connection between puerperal sepsis and erysipelas. These observations were made at a time immediately after the appearance of Hugenberger's communications, and at that time I could not have added anything materially new to them by publishing the cases observed by me. Since through the erysipelas coccus, the specific principle of erysipelas, the peculiarity of the disease has been so beautifully proven, it seems to me that now is the time to emphasize again from a clinical standpoint the individuality of erysipelas in the puerperium, and to endeavor to prove that this disease has nothing in common with puerperal sepsis. In the next place the history of a large number of erysipelas cases during pregnancy can be brought forward to substantiate this view. Medical literature contains a sufficient number of observations on the course of erysipelas in pregnant women, and I myself could quote a still larger number of cases; but partly because I have not the full notes of these cases, and partly because a large number of histories of cases would only be tiresome, I shall confine myself to the following:

I. C. A., from Alsace, 23 years old, in the last month of pregnancy, is taken ill on the 15th of Nov. with erysipelas of the right cheek, with

I v. this Archiv, vol. 13, p. 389.

chill and fever. The erysipelas extending to the left cheek with increase of temperature.

On the 19th of Nov. the pains began, and on the 20th a matured child was born.

While on the 19th and 20th the erysipelas was abating and correspondingly the temperature had dropped to $38.2^{\circ}\text{C}.$, it rose on the 21st, the first day of the puerperium to $39.2^{\circ}\text{C}.$, because the erysipelas had extended to the forehead and neck. On the 24th, the fourth day of the puerperium, temperature sinks to normal. The patient is convalescent, and is dismissed on the 2d of December, well.

II. L. Stoll, 25 years old, primipara; she noticed in the 8th month of her pregnancy a painful redness on the left leg in the region of a small abrasion; this redness increased the next few days. The left leg is œdematous, and the anterior surface of the leg is intensely congested. At the same time there is high fever ($40^{\circ}\text{C}.$).

The redness and swelling increase considerably in the next few days, in such a way that the disease extends to the upper leg [thigh] as far as the groin and decreases on the leg. Large blisters appear on the thigh, while the process extends to the left buttock. The erysipelas, with continued high fever ($40.7^{\circ}\text{C}.$), creeps over the posterior surface of the abdomen to the right thigh and the genitalia.

On the 11th day the erysipelas descends on the posterior surface of the right thigh, but upon the back [body] it ascends to some extent. The left extremity is again of normal color up to the knee; the epidermis peels off in large pieces.

Slight pains [labor] began on the 10th day of the disease, and the foetal heart sounds distinct.

On the 12th and 13th days the disease extends along the back up to the back of the neck and to the sides of the thorax. The patient begins to cough, and rales are heard on both sides below [behind thorax], and there is also some dulness on percussion. The patient is in a stupid state, takes no nourishment, temperature $39.2^{\circ}\text{C}.$ Foetal heart-sounds no longer heard.

14th day, patient in a collapse; great dyspnoea. Dulness on both sides of the thorax up to the angle of the scapula (*Angulus Scapulæ*); labor pains present.

15th day, the condition of patient worse, pulse 138; on the inner side of the left leg there is a gangrenous spot as large as a silver dollar.

On the 16th day the birth of a macerated male foetus of eight months takes place with violent labor pains. A few minutes afterwards the death of the patient occurs.

Postmortem (v. Recklinghausen): Thickening of the left lower extremity, with peeling off of the epidermis. On the back part of the extremity are observed red spots, and the skin is also infiltrated; on the

thigh the subcutaneous tissue is rich in fat, with localized infiltration; the lymph glands of the inguinal region are enlarged and the lymph vessels leading to them filled with pus; the skin of the back of the foot œdematous. In the deepest layers of the subcutaneous tissue of the leg there is a moderate infiltration of pus; there is no change of the bone. On the right side there is only œdematous infiltration in the subcutaneous tissues. In the lower portion of the skin of the abdomen there is a distinct infiltration of pus in the connective tissue layers which are imbedded in the fatty tissue. In each pleural sac there is about a litre of purulent fluid. In the lungs on both sides exists atelectasis in the lower parts. Spleen unchanged. The kidneys show cloudiness of the corticle substance and hyperæmia of the medullary portion. And there are no deposits of tubercle to be found. The uterus extends above the pelvis. The peritoneal cavity and Douglas' cul-de-sac are free from disease and there is nothing pathological in the uterus or its appendages.

In both of these cases the erysipelas occurred as an accidental disease during pregnancy, just as it might attack any other person. It is, to say the least, doubtful if the birth in the first case took place under the influence of the disease (*des Fiebers*) or not, because the fever was not high enough, nor did it last long enough to make this probable, and again, because the patient was in the usual health of a woman at the end of a normal pregnancy. At all events, the birth took place while the erysipelas was going on, the latter taking its course in the usual way without having any influence on the puerperium at all; not to mention the fact that septic conditions had appeared in the puerperium.

The history of the second case is entirely different. A pregnant woman, in the 8th month, is suddenly taken sick with erysipelas, and in its long duration and high fever, the child is born dead. Immediately after, the patient dies, and the post-mortem shows with certainty that the puerperal fever is only an accident in the course of the erysipelas, and that in spite of the fact that the patient was sick with erysipelas and finally died of it, that there were no post-mortem changes present to point to a puerperal sepsis.

The appearance of erysipelas as an accidental complication in the puerperium is no less characteristic and clear in a number of cases, from which I cite one as an example.

III. A. B., after an easy labor, gave birth, in April, 1883, to a living child, and was taken sick on the fourth day of the puerperium with an erysipelas faciei, with correspondingly high fever. At the same time she had a cough, with rust colored sputum. A decided dulness on percussion could not be found. The fever continued until the 8th day, and the crisis occurred on the morning of the 9th day, when the fever fell,—at the same time the abdominal signs in the lungs gradually disappeared,

the erysipelas quickly disappeared, and she was completely cured. There was not the slightest disturbance to be found in the genitalia.

Here we have the case of a healthy lying-in-woman who is taken sick on the 4th day of the puerperium with erysipelas faciei, which takes the same course as with any other person, leaving the puerperium entirely unaffected. The height of the fever keeps pace with the intensity of the skin disease, both dropping together; there being no disturbance in the genital tract. Another set of cases helps to prove that erysipelas and puerperal sepsis have nothing in common. Of these cases I have only noted one, which belongs to the above mentioned epidemic of nosocomial (?) erysipelas.

IV. A. B., after a light case of labor, was delivered of a living child on June 21st, 1879. Up to the eighth day the puerperium was normal without fever. On the eighth day there appears with high fever (39.0° C., pulse 102; evening, 40.5° C., pulse 120), an erysipelas which started with an abrasion on the right mammary gland. This erysipelas extends gradually over the whole breast, reaching posteriorly to the back and upward to the neck, thus involving the whole thorax. Later, it extends to the skin of the abdomen below the umbilicus; at the same time there is very high fever with an irregular and extremely frequent pulse. The patient, from the beginning, was very restless, and tried to jump out of the window. On the fourteenth day of the puerperium and the sixth day of the disease, coma set in; appearances of pneumonia having already been observed on the fourth day of the disease. On the fifteenth day of the puerperium, and the seventh of the disease, the patient died.

The post-mortem showed a bright redness of the skin on the dependent parts of the trunk and upper extremities, the remaining parts being colorless. On making an incision, there was found everywhere corresponding to the red places, a succulent somewhat œdematous condition of the fat tissue, and nowhere pus or cloudy infiltration. The interstitial cellular tissue of both mammary glands were in the same condition. The right luncu was slightly cloudy on the surface of its middle lobe, and in the middle lobe there was also a small number of lobular hepatizations which are situated near the surface of the lung, and these are hard and resistant. The remainder of the right lung is hyperæmic, otherwise normal. The spleen was swollen, hyperæmic and soft. The kidneys were very much swollen, the corticle substance was very large and cloudy; and the medullary was congested. The abdomen was entirely normal. Uterus was gradually gaining its normal size, its internal surface dark red and covered with a thin grey mucous coat. The broad ligaments were not diseased, both ovaries, as well as the other appendages of the uterus and vagina, were in a normal condition. There was œdema of the pia-mater and brain.

The child, a healthy boy, was taken sick two days before the death of the mother, with erysipelas of the face, which began with a small abrasion on the nose. On the third day of the disease the child died.

At the post-mortem there was found only a hyperæmia of the brain and an infiltration of the subcutaneous cellular tissue of the parts where erysipelas had occurred during life.

This case resembles, to a certain extent, case 2. In both cases a typical erysipelas, beginning with an abrasion of the skin, occurred after pregnancy, in an entirely healthy lying-in-woman, on the eighth day of the puerperium. Case 4 takes a serious turn with violent appearances, and ends fatally on the seventh day of the disease and the fifteenth of puerperium, although during life every appearance was wanting to point to a disease of the genital apparatus, the course of the disease could be diagnosed a puerperal septic infection, because at the same time there were cases of the same kind of disease in the department.

If there had been no post-mortem this observation might have been sufficient to prove the connection between erysipelas and puerperal fever, the discovery of the erysipelas coccus had not been made or else the proofs and attempts at cultivating might have been able to confirm the diagnosis during life. The post-mortem showed that it was only a bad case of erysipelas.

If all the cases of erysipelas which have been recorded scarcely admit of a doubt that during pregnancy and the puerperium occurs an accidental disease which stands in no relation to septic infection, that will not appear clear, very likely, without further explanation in the following group of cases. The question here, on the contrary, is of cases of erysipelas which set in at the same time that puerperal sepsis existed, and which by a superficial observation could be regarded as proving the connection of both conditions. Observations of such kind have been made which have led to the widely disseminated opinion of the connection between erysipelas and puerperal fever.

V. C. Bassler, 19 years old, entered the hospital and gave birth after an easy labor to a female child. She did well up to the tenth day, when she was taken sick with appearances of perimetritis and parametritis, the fever running high (40° C., pulse 120).

On the sixth day of the disease, and fifteenth of the puerperium, there appeared an erysipelas of the abdominal walls, starting from some leech bites on the abdomen. This quickly spread over the entire abdomen, back, and to the external genital parts. This lasted ten days. The parametritis brought on a pelvic abscess which burst into the rectum. The patient was dismissed, entirely cured, after a long illness.

The eight cases which briefly follow came (together with case 4) at a time when puerperal sepsis was quite prevalent in the Obstetrical Depart-

ment of the Charité. Runge has already reported three cases (*v. Zeitschrift für Geburtshilfe und Gynäkologie*, Bd. V., S. 165).

VI. A. Klisch was delivered of a macerated foetus on Nov. 12th, 1878. At this time there occurred a rupture of the perineum which was sewed up. Until the tenth day of the puerperium, there were only slight febrile sensations, with moderate pain over the uterus. From this day on, the fever reached 39.8° C.; the appearance of septic parametritis with offensive lochia became more evident.

On the eighteenth day of the puerperium, and the eighth of the disease, there set in an erysipelas faciei, starting from the tip of the nose. At the same time there were appearances of pneumonia of the left side, without any material change in the fever ($39-40.5^{\circ}$ C.). After four days the fever had entirely disappeared. After a still longer sickness of this septic disease, the lying-in-woman died on the thirty-third day.

The post-mortem showed a left-sided phlegmonous inflammation of the ligamenta lata, and starting from here there were purulent decomposed thrombi of the venæ iliacæ, femoralis and saplena sinistra. Broncho-pneumonia of both lungs, with pleurisy of the left side, also present.

VII. Mrs. B. gave birth, on March 17th, 1879, to a living child at full term. A rupture of the perineum was united with several sutures. On the second day of the puerperium a high fever set in (39.2° C) with tenderness about the uterus and with offensive lochia. The perineal sutures were removed and the uterus washed out.

On the sixth day of the puerperium, erysipelas showed itself at the perineal rupture and extended to the right thigh, and, with increasing high fever, gradually spread itself, step by step, from the right thigh to the back, then to the left thigh, and from there to the abdomen and to the chest.

At the same time there appeared, on the tenth day, a pneumonia of the right lung.

On the twenty-fifth day of the puerperium, the erysipelas entirely disappeared and the patient was considered, on the thirty-second day, as entirely cured.

The child died of erysipelas.

VIII. M. J., on the 14th of April, 1879, was delivered of an undeveloped living child. The patient came into the Hospital with marked œdema of the labia, legs and abdominal walls, showing symptoms of the albuminoid kidney of pregnancy. At the delivery she had several eclamptic convulsions. The lying-in woman had fever beginning with the first day of the puerperium, and there was also offensive lochial discharge and tenderness over the whole abdomen. On the ninth day of the puerperium an erysipelas of the inner part of the right thigh set in; on the tenth day this extended to the whole thigh. On the eleventh day the pa-

tient died. The post mortem showed slight diphtheritic kolpitis, thrombophlebitis of the site of the placenta, anæmia and fatty degeneration of both kidneys, hypostasis and œdema of the lungs. In the veins and in the subcutaneous cellular tissue of the right thigh, there were no anatomical changes to be found.

IX. Mrs. L. was delivered on the 6th of April, 1879, of a living child at full term, and was taken sick on the second day of the puerperium with high fever ($40\cdot1^{\circ}$ C.), tenderness over the uterus and annexes. An offensive lochial discharge began on the eighth day. On the eleventh day of the disease there appeared a decided erysipelas of the right thigh, starting from a *ulcus puerperale* of the labiæ. On the 3d of March the patient died. The post mortem showed kolpitis et endometritis diphtherica, thrombophlebitis uterina, phlebitis spermaticæ sinistræ, embolia art. pulm. dextræ, infarctus lobi inferioris dextri, pneumonia lobi inferioris sinistri, nephritis, hyperplasia lienis.

X. M. G. gave birth 19th of April, 1879, to a living female child at full term and was taken sick on the second day of the puerperium with fever ($39\cdot1^{\circ}$ C., pulse 112), with offensive lochial discharge, with tenderness over the left uterine region. A parametritis of the right side appeared. On the twelfth day erysipelas which started at a leech bite appeared on the abdomen, with high fever ($39\cdot4^{\circ}$ C.); the fever lessened and the erysipelas grew better, and the patient after experiencing a short relapse was dismissed cured after three weeks' illness.

XI. T. κ., on the 6th of March, 1879, while being transported to the Hospital, was delivered of a child and entered the Hospital with a perineal-vaginal rupture which necessitated the introduction of nine sutures. On the third day a violent fever set in with tenderness about the right parametrium. The sutures had to be removed and on the sixth day erysipelas began at the perineal wound and extended to the left buttock and thigh without any marked rise of temperature, and by the fifth day it had completely disappeared. The patient was discharged on the fourteenth day cured of the parametritis.

XII. A. N. sustained at her confinement, 16th March, 1879, a bad rupture of the perineum, was taken sick on the third day of the puerperium with signs of septic infection; fever reached $39\cdot5^{\circ}$ C., there was tenderness on pressure over the uterus with offensive lochia. On the fifth day there began at the perineal rupture an erysipelas which extended to the abdomen, lumbar region, both buttocks, and upper and lower limbs. This erysipelatous condition was not cured until the twenty-third day of the puerperium, signs of septic infection had already disappeared. The child was also taken sick with erysipelas (fourth day after the mother). This erysipelas began with a small abrasion in the right axilla. The erysipelas extended to the head, back and breast, and the child died in a few days.

XIII. J. was delivered of twins 6th of May, 1879, and was taken sick on the third day with fever (39° C.) and offensive lochia. On the sixth day she experienced tenderness over the left parametrium, which on the seventh day was markedly swollen. On the eighth day her temperature was 40.2° C., with swelling of the left labium. On the tenth day there appeared a diphtheritic ulcer of the right labium from which erysipelas extended to the right buttock. On the eleventh day the erysipelas was better but the patient had a cough with red-brown expectoration. Above and behind on the right of the thorax there was dulness with crepitan rales, fever reached 40° C. and was remittant in type. On the 16th day bed sores, profuse diarrhoea, tympanites, tremors, cyanosis, and finally unconsciousness. There was swelling of the right knee joint. Death occurred on the 23d day.

Post mortem showed endometritis ulcerosa and a purulent lymphangitis of the left parametrium, extending to the cervix. Corresponding to this on the inner surface of the uterus was a discolored ulcer, up to which the lymph vessels could be traced. There is also myocarditis, hyperplasia of the spleen, and parenchymatous inflammation of the liver and kidneys. The parts which were invaded by the erysipelas showed no longer changes.

XIV. W. J., delivered on the 17th of July, 1879, of a living child at full term after an easy labor, and was taken sick on the third day of the puerperum with rigors and high fever (39.7° C., pulse 148) the lochial discharges were somewhat offensive, the uterus sensitive upon pressure, and both parametria very painful. On the fifth day a second attack of rigors occurred. On the sixth day there appeared on the inner side of the right thigh an erysipelas which extended to both thighs, both buttocks, accompanied with fever. The patient became delirious and died on the eleventh day of the puerperium. Post mortem showed slight cedematous infiltration in the subcutaneous tissue in the parts attacked with erysipelas. The uterus showed a gangrenous endometritis on the placental site. There is also a phlebotic parametritis of the right side and pelvic phlegmonous inflammation of the left side. There is a slight purulent exudation of the pelvic peritoneum. Metastatic pleurisy of the left side and cloudy parenchymatous swelling of kidneys and liver.

All of the cases of erysipelas which have been enumerated, with the exception of case V., occurred at the time of a so-called epidemic of puerperal fever, and constituted only isolated cases in contradistinction to the number of those who were taken sick with puerperal sepsis under other conditions, so that for this reason it would be a greatly exaggerated supposition to seek for a causal connection in the statement that erysipelas had been the cause of the puerperal infection. But a more decided contradiction to this kind of supposition is to be found in the history and course of the disease in every case. For there were always evident signs

of puerperal sepsis, as we know from the history of the cases, before the erysipelatous affection attacked the skin, and the course of the sepsis was in most cases as if no new disease had appeared, or at the most that the fever was higher and more irregular, or that pneumonic symptoms were added. In the cases which ended fatally the post mortem showed that severe forms of sepsis were present, and that further it was not the question of phlegmonous inflammation, such as indeed more often occur in the puerperium, and such as indeed undoubtedly stand in genetic connection with puerperal fever, — but the question is actual, genuine erysipelas. It is very likely, therefore, that there is not the slightest ground for supposing, even from these cases, in my opinion, that erysipelas is able to cause puerperal sepsis. If, therefore, from a clinical standpoint, the theory that erysipelas does not lead to puerperal sepsis could with certainty be announced before the discovery of Fehleisen, this view is very materially supported now by the discovery of a special micrococcus of erysipelas. But there was a great temptation to prove this question experimentally. Through the great courtesy of Dr. Fehleisen, whom I again thank in this place, I obtained in the course of the summer a large supply of the erysipelas coccus in beautiful culture. The fact that the cultures were obtained from the hands of Dr. Fehleisen goes to show that the material was free from objection, moreover I made conclusive experiments by first inoculating two rabbits in the skin of the ear with the smallest quantity possible of the micrococci. Each time there appeared an evident erysipelas which was especially severe and typical in one of the cases. The animals had fever and recovered when the skin trouble disappeared. I then inoculated six rabbits with the same material, by introducing in the case of two a small quantity into the cavity of the peritoneum, with the second two I simply opened the abdomen, scratched the peritoneum, and introduced the matter into the small wound. In the last two I introduced small quantities of the erysipelas coccus in the subserous cellular tissue of the peritoneum and abdominal walls.

Not one of these animals was taken sick in any way worthy of mention, but all lived days and weeks. After some time I killed them all and in not one of them did I find a pathological change traceable to septic processes. The matter which had been introduced had either disappeared without leaving a trace behind, or there were seen on the points of inoculation small, white caseous deposits, such as are so often found under the conditions after wounds in animals.

I may say here that I of course undertook these experiment under strictly antiseptic precautions, but guarded of course against bringing this material while inoculating into contact with the antiseptic fluid, to prevent the objection being brought forward that the infectious property of the micrococcus was perhaps destroyed during the inoculation.

Although these experiments are capable of many modifications, and

perhaps may not be considered as absolutely conclusive, still at all events they support in such an excellent manner the conviction that we have obtained by clinical study, that erysipelas cannot cause sepsis or puerperal fever.

There remains also the other side of the subject to be investigated, that is, whether the septic virus or the fluids such as the lochia which contain this virus can cause erysipelas when it is brought in contact with wounds of the skin.

Apart from the fact that this question has no such practical importance as the one just considered, still I can only briefly point to the fact that in my clinical observation there is no case known to me which could make this mode of infection appear probable. If erysipelas could be easily produced from a lying-in-woman who has puerperal fever, the number of observations ought to be very large. But in the literature of this subject the cases on record are by no means large, and those which do exist admit of the supposition that they are not genuine erysipelas but phlegmonous inflammation whose connection with sepsis is known, as has been already repeatedly shown.

Experimental investigations in this direction would promise very little so long as the micrococcus of the different septic and pyæmic conditions are not yet better known than formerly. On the contrary, the erysipelas coccus has been confirmed by Fehleisen's discovery as a specific cause of disease, and we have no right, therefore, to call redness, swelling of the skin, or, indeed, of the subcutaneous cellular tissue as they occur in inoculating with septic material, as erysipelas, so long as we cannot find the erysipelas coccus there, or prove its presence by further inoculations and cultures. If, indeed, an actual erysipelas could occur by inoculating with septic material, then we are, in my opinion, forced, in accordance with the present condition of the teaching of erysipelas, rather to believe in a contamination with the erysipelas coccus, than to believe that the micro-organisms of sepsis can lead to erysipelas. We can only deal with this question further when, as I said, the micrococcus of sepsis is so well known and so clearly defined as that of erysipelas.

CINCINNATI:

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