© Biodiversity Heritage Library, http://www.biodiversitylibrary.org/; www.zobodat.at

## I.

# Original-Abhandlungen.

## Vegetations found in the Blood of Patients suffering with Erysipalis.

#### By

## J. M. Salisbury, B. N. S. A. M. M. D.

The Microscopic examinations of the blood and secretions in Erysipalis were commenced in 1862. The first case examined, in which were found fungoid filaments and spores in the blood, was that of Miss K. W. who was attacked Nov. 25th 1862 -- in face and scalp. She was a lady of fair complexion, fine constitution, sanguine temperament, aged 22. On the fourth day of the disease, while the face and scalp were much swollen and patient delirious, I drew from the temple half an ounce of blood and about the same quantity from the wing of the nose; which parts were greatly swollen and covered with minute blisters. Her physician regarded her case as critical and was willing to do anything that would promise relief and satisfy the anxiety of the family and friends. The blood was peculiarly red and clot soon formed which was very firm; leaving on the surface a large proportion of clear serum. In the serum I found nothing abnormal. The clot I found somewhat difficult to examine, on account of its firmness and its being filled so full of blood globules; which were not readily washed out. I spent many hours in teasing out and washing specimens, before I was able to prepare them for a satisfactory examination. During the evening I, for the first time, - detected in the fibre of the Clot fungoid filaments, reeming in various directions and branched as seen at d and e Fig. I. Taf. I. After making the first discovery of filaments, I had not much difficulty in readily finding

IV, 1.

#### Salisbury,

them in all parts of the clot. Sprouting spores were also often met with.

The next day I visited the patient, taking along the microscope, and made examinations upon blood freshly drawn, in order to determine whether the filaments found, really existed in the blood when drawn, or whether they developed after it was removed from the body. I readily detected them in the freshly drawn blood in which they were more easily discoverable than in the clot.

The patient was constantly growing weaker and more delirious and the swelling was increasing so that the prognosis was decidedly unfavorable. After consultation with the physician in charge, during which I explained to him what I had found; it was concluded to direct the treatment as much as possible, to the checking the fungoid growth; believing that if this were the cause; and its developement could he checked, a favorable change would result.

Ordered given 2 grains of quinine every two hours and 20 drops of tinct. Feni — chlorid, — in a glass of water every four hours, — and to paint the entire swollen surface with dilute tincture of Iron, every 3 or 4 hours. She was to take all the beef tea possible, and bowels were to be opened once daily with cream tartar and bicarb. soda, given in small effervescing draughts.

In about 12 hours, symptoms began to improve. The treatment and diet were continued and the recovery was rapid and perfect.

In order to determine the place of this fungus, I drew half an ounce of blood, - before treatment commenced, into a clean bottle, with ground glass stopper and tightly corked and set aside at a temperature of 75° Fah. In a few days, the surface of the blood was covered with a beautiful crop of fertile threads. On examining these under the microscope, the fertile threads were found to be in full fruit. One of these is represented at a I. Taf. I. The fertile filaments were noticed to branch mostly on one side. The mycelium branched equally in all directions. The fertile head is beautiful and peculiar. Usually the fertile filament is divided at the apex equally into four closely fitting branches, - which go up close together for a distance equal to about four times the diameter of the filament, - where they are intercepted by a joint, at which point they all begin to diverge, and as they extend, bend upwards in the form of a bell. Soon each branch subdivides into four branchlets, - each of which is terminated with a long

2

#### Vegetations found in the Blood of Patients suffering with Erysipalis. 3

moniliform chain of highly transparent, refructive, spherical spores, which are shed by the least disturbance.

The Mycelium (b, c) is jointed and variously branched like that found in the blood in the same case; a sample of which is seen at d and e I. Taf. I. It will readily be seen that this is a species of Penicillium. This may be the P. crustaceum (glaucum) modified by the soil in which it grew: but the beautiful regularity with which the fertile thread at its apex, is divided and subdivided by fours, — has suggested the specific name, quadrifidum.

Case 2. In December, 1865 - I was called to see Mr. M. 162 Jenica St. Cleveland. He had been attacked with Erysipalis in the wing of the nose six days previous to my visit. The swelling and redness extended rapidly over the whole face and scalp. Found the head swollen to nearly twice the normal size, - eyes closed and patient delirious. Could not keep him in bed without constant watching and much persuasion. He had been passing blood from the Kidneys in large quantities for three days. Urine had the color of blood yet was mostly free from clots. On examining the blood from the swollen face and head, - with the microscope, — found in it the spores of a species of Fusisporium, resembling that which grows upon the potatoe. On examining the bloody urine, found the spores of the same plant, and occasionally a filament with one or more spores attached. At g I. Taf. I. are seen the various formed spores and at h. is seen a short filament with a single spore, and at k. a filament with nine spores attached.

Mr. M. had spent the previous summer in the Lake Superior Mining region attending bar; — and had much of the time lived mostly upon potatoes and bread, — having but little meat. He returned home only a few weeks before the attack; and having no business to attend to did but little besides eating, sleeping and lounging about.

Ordered given 2 grains of quinine every two hours and 20 drops of tincture Ferri — chlorid — in a full glass of water every 4 hours. The bowels were to be kept open once daily with congress water; and beef tea to be given frequently and all he would take. The face and head were painted every few hours with dilute tincture of iron.

In about 30 hours, the swelling began to subside, and the patient gradually, but steadily improved; and in about 3 weeks was quite recovered; except the hematuria, which had much les-

1 \*

#### Salisbury,

sened; but still colored the urine considerably. This bleeding did not entirely cease till the following April ').

In Diptheria, I have found the Mycelium of a species of Peronospora, growing in the exudation and in the subjacent epithelial tissue. This plant is figured and described in a paper on the cause of Diptheria.

Case 3. Mr. J. H. - a carriage maker, - aged 28 - of good constitution and regular habits; but a great vegetable feeder, and especially fond of potatoes; was attacked with Erysipalis of the face, July 18th 1867. He had been living freely upon old potatoes, that were beginning to be affected with the rot. The swelling began just above the right eyebrow. Thinking it a boil he opened it. Swelling continued and extended over the forehead, partially closing both eyes; and on the 21st when I first saw him, he was dizzy and delirious, - one eye was shut and the other nearly so, and face and forehead very much swollen. The urine was high colored and scanty, and bowels costive. On examining the blood under the microscope, found the spores and filaments of one of the mucedinous fungi, -- which proved to be, by developing in a closely stopped bottle, the Peronospora infestans, (Botrytis infestans), - the plant that produces the rot in the potatoe. Ordered 2 grains of quinine every 2 hours and 20 drops of Tinct. Feni — chlorid — in a full tumbler of water every 4 hours, the face and scalp to be painted with dilute Tinct. Iron morning, noon and night, to have bowels kept open once daily with effervescing draughts of cream tartar and Bicarbo. soda, -and to have all the beef tea he can take. Patient began to improve on the following day, and recovered rapidly, so that in ten days he was at his work.

Case 4. Mr. A. O'D. of New York, was attacked with erysipalis at Meadville Pa, — where he had been watching night and day for about two weeks with a friend who died with malignant erysipalis. The swelling began in the wing of the nose and cheek. About 24 hours after the attack, he started for Cleveland. The

4

<sup>1)</sup> O'Brien states that potatoes affected with the rot, produced by the Botrytis infestans, excite (when eaten) heat of skin, accellerated pulse and abdominal pains. Second, rose colored spots, migrating and evanescent and diorrhoea. In the third stage, tumefaction of the muscles and neck, shoulders and arms, — acute pain there and in the worst cases, — Erysipalis of the face and scalp and oedema of the eyelids.

### Vegetations found in the Blood of Patients suffering with Erysipalis. 5

cars were crowded and he had to stand most of the day. The weather was cold and damp (during April), and when he arrived in Cleveland, his head was swollen nearly twice its natural size and he was quite dizzy and delirious. Saw him at his lodgings on the evening of his arrival. He was greatly prostrated and chilly. Ordered  $2^{1/2}$  grains of quinine every 2 hours and 20 drops of Tinct. Feni chlorid, in a tumbler of water every 4 hours, and the face and head to be painted every 4 hours with dilute Tinct. Iron. His bowels were quite costive, and urine scanty and high colored. Ordered congress water to be drank through the night when thirsty, and to take all the beef tea he could.

On examining the blood, found the spores and filaments of a fungus which on developing, proved to be the Penicillium quadrifidum (salisb.) described in the first case and figured at a, b, c, d and e. The following day he was very delirious and was determined to die; refusing to take medicines and food. By much persuading, we succeeded in getting him to continue treatment and diet. During the day the bowels moved and the head became somewhat clearer. The head was however enormously swollen and eyes perfectly closed. In about forty hours the swelling began slowly to subside and the delirium abated and strength improved. From this time improvement was gradual, but steady and in two weeks he was up and about. The Cuticle came off over the whole face, neck and head; the hair, whiskers, and eyebrows all fell out, and it was several months before they again came in and before the unnatural redness of the face and scalp passed away.

# **ZOBODAT - www.zobodat.at**

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Zeitschrift für Parasitenkunde

Jahr/Year: 1875

Band/Volume: 4\_1875

Autor(en)/Author(s): Salisbury J. H.

Artikel/Article: I. Original-Abhandlungen. Vegetations found in the Blood of Patients suffering with Erysipalis 1-5