AN INAUGURAL DISSERTATION ON

SCORBUTUS

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BY
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Scorbutus

Definition: Scorbutus is a disease in which the blood is deprived, the system debilitated, with local congestion or acute inflammation; factor of the breath, spurring of the gums, spontaneous hemorrhage, livid spots beneath the skin, particularly at the hair roots of the hair, and frequent contraction of the limbs. In Cullen's classification it is placed in the claf Cachexia, and order Impotizes.

History: This disease must have been known to the earliest writers in medicine; although the fact is disputed by many medical authors of the first celebrity. The history can be traced back through the different ages, to the time of the crusades of Louis IX, to whose army it proved very destructive. It afterwards became endemic throughout Europe, and was for many years, the terror of sailors and soldiers.

During the 17th and 18th centuries, it proved...
very fatal to the sailors, and this said that
more mariners die of scurvy than of all
naval engagements, added to those who died
at sea, by shipwreck and otherwise.
Cases have sometimes occurred in the Navy,
especially in besieged towns, ports and in
places where it was to get a supply of vegeta-
good. In former days, the city of London
suffered greatly from this terrible scourge.
The years of famine in Ireland and
Scotland... men were curtailed to their
by this disease. Our own army suffered
greatly, during the Florida and the marines
Mexico.

Many more instances of its ravages might
begin, not, it necessary, suffice. The day,
that this sort is spread in crowded regions, on
board, in armies and other places, where there
is a want of proper attention to cleanliness,
Good, I.

Symptoms. The first symptoms of scurvy are,
unhealthy pallor of the complexion; indisposi-
tion to bodily action, unusual weariness.
after exercise; fatigue and aching of the limbs, as from over exertion, though the patient may have been at rest; some swelling, soreness of the tendons of the gums, with a disposition to bleed, from slight causes. As the disease advances, the face becomes more pale, sallow, and assumes a dusky, dull, lusterless hue. The lips and tongue are pallid, and form a strong contrast with the gums. These are purple or livid, especially at the edges; they are soft and puffy, rising up between the teeth, and bleeding from the slightest cause. The breathing is offensive. Buchs! Spots appear on various parts of the body, usually beginning on the lower extremities, and after wards extending to the trunk, and such spots also appear on the hands and arms, but seldom effect the face. Hæmorrhage often occurs from the nose, mouth, and gums; and some times from the stomach, bowels, and urinary passages. The lower extremities become painful, and sudden, and the
general debility increases. Fainting, vertigo, dizziness, and a feeling of pain and coldness, with palpitation of the heart, are apt to follow. Mucous spots, reddish, sometimes obvious, being sometimes small, at other times as large as the palm of the hand. These are said to resemble the ecchymoses following blisters.

If the disease is one of the cheeks, all of the symptoms increase. The complexion assumes a livid, or leaden hue; the gums become greatly broken, and put forth to a black fungus, which sometimes conceals the teeth; stinging takes place, and frequently extends to the cheeks; this sometimes lags over the necks of the teeth, which becoming loose from this cause, drop out. Blood oozes from the gums continually; the patient cannot chew without great efforts as his gums.

Hard and painful tumors form under the jaws, in the hands, calves of the legs, muscles of the thighs, and upon the tibia. There is stiffness and contraction of the joints, especially the knees, and severe pain upon every attempt to move them.

As the disease advances the acuteness increases, till the least muscular exertion becomes dangerous, and patients have been known to die, or being removed from bed, wounds are sometimes the seats of old ulcers, assume a most morbid action; small scratches frequently degenerate into unhealthy sores, from which blood flows, and exuding, forms a crust or soft gosney mass, which on some occasions, increases rapidly, and attains considerable size. The edges of the ulcers are pale and flabby, and covered with large unhealthy granulations. The bones become soft, and the seats of old fractures occasionally separate.
The epiphyses in young persons have been known to separate from the bone. The skin assumes a purplish or livid hue, and if the gums have been touched with mercury, they are much more liable to suffer than if they had not. 'The vital powers are greatly prostrated, and there is often a tendency to congestion of a low inflammatory character.' This is frequently accompanied with an effusion of serous or blood, which often coagulates, and gives vital organs, prove highly dangerous. This is said to be the cause of the hard tumors in the extremities just spoken of. It may take place in the substance of the lungs, stimulating pneumonitis. In the pleura or pericardium, causing great oppression and dyspnea. In the pericardium causing apoplexy, drowning, or coma, sometimes extravasations take place in the synovial cavities.
These however, seldom separate. Serious effusions frequently take place in the cellular tissue, and closed cavities, and some times in the pleurae, chiefly of the lungs. When in the latter situations they give emphasis to respiration. Sometimes this effusion is so great, as to amount almost to general apoplexy.

The appetite and digestion, are generally good, till towards the close of the disease. Sometimes there is a craving for food, especially for vegetables, which the patient is unable to partake, on account of his gums. The tongue is generally moist and clean, till towards the close of the disease, unless complicated with febrile symptoms. Frequently there is vomiting and gastric distress.

The bowels are generally constipated, sometimes absolutely so. This however is not always the case. Diarrhoea occasionally sets in, with blackish stools. The pulse is usually small.
Belly and throat, and the skin below
the natural temperature; but occas-
ionally the pulse becomes quicker, and
the skin febrile. The latter is usually
dry, stick and shining on the st.
temeter, if they are much adherent.
The urine is scanty, and highly colored.
Cerebral disturbance is not a frequent
symptom, though it sometimes comes
on towards the close of the disease.
Perhaps, the most distressing symp-
torn, is an inability on the part
of the patient to sleep. And another
very singular symptom is, that patient
suffering with scarlatina, scarcely
know how very feebly they are, and
frequently persist in rising from
their beds, when they are quite able
to move.

Course. This is variable, generally
it is gradual; the patient not being
able to say, when the disease commenced;
but says he has felt well, sluggish.
and inactive, for some time before
he took his bed. At other times, it re-
 mains latent, for a considerable time,
then breaks out violently and runs
its course rapidly. In other cases
it remains for a great length of
time, without aggravation, and finally
ceases under a change of circumstanc-
es. The severity of the disease depends
in a great degree on the previous
condition of the system. Delicate
persons, especially the aged and intem-
perate, sink lowest. It is said
also to be more severe on sea than
land, though it is generally more diffi-
cult in the treatment of land
than sea scurvy. This may, I think,
be attributed to the different circum-
sances which bring on the disease;
the land being perhaps less favourable
to the production of scurvy than the
sea. This is little, or no appreciable dif-
ference between scurvy on land, and
scurvy on sea; the pathology and
treatment being the same; all other things being equal. It generally occurs towards the close of winter, or beginning of spring, and is more prevalent among poor people, than those in better circumstances.

**Anatomical Character.** The phenomenon most generally observable after death, is extravasation of blood in various parts of the body. This is what we would most naturally expect, from the character of the disease. The purplish spots turn out to be ecchymosis in the substance of the skin. Similar spots are found on mucous and peritoneal coats of the intestines; blood and fibrine are found in the pericardium; in the muscles, between the peristrium and the bones, and sometimes in the serous cavities. Blood is sometimes found coagulated in the heart, and liquefied blood is found in the large veins.
Bloody effusions have been seen in
the brain, and large quantities of
plains have been found distending
the pleura, pericardium and peri-
toneum. The cones are found fragi-
in some cases, and as has been stated,
not unfrequently separate at the sur-
et of old fractures, and from the epipha-
ises in young persons. The mesothelial
membranes are generally pale and flabby,
if not coloured by the effusion of
blood.

Causes Various causes have been
attributed to the production of searing,
and fortunately for us with the cause:
the remedy suggests itself. And among
few fellowotherwise, affected to the
grave at an early age, is now re-
cued from the ravages of this one
horrible malady. Among the many
opinions that have been advanced,
as to the cause of searing, may be enumer-
ated, salt food, putrid water, lead
also, spruit meat, a want of personal cleanliness, uncleaned bread. All of these are, no doubt, strong predisposing agents for the production of the disease; still cases have originated, that could not be attributed to these causes alone, and this circumstance would lead us to search for it somewhere else. This is now known to be the want of fresh succulent vegetables, a strong proof of this. The rapidity with which the disease disappears, when they are furnished, to those persons suffering with scurvy, and again, no matter how clean a ship may be kept, or how well a pigpen may be ventilated, scurvy is after appearing, if vegetables compose no part of the diet of their inmates. Its prevalence in the latter part of the winter, and beginning spring, is also strong evidence of the truth of this assertion. For at that season of the year, vegetables are scarce, and the disease to a greater extent than at any other time;
but as soon as the vegetables of spring come in to market, it disappears.

Though the want of vegetables may not be the only cause assigned for the production of scurvy, it must be the chief one.

This, when combined with dissatisfying agents will delavne fail. I witnessed a case. Next evening the latter part of last winter, where it was evident that fear, acting as the remote cause of its production. The patient was a merchant, who invited the custom to an easter, for the purpose of laying in a stock of goods. It happened that the cholera prevailed to some extent on the river, and for fear of falling ill in this disease, he abstained from all vegetable diet for a week or more. On his return home, he was attacked with a well marked attack of scurvy, which yielded readily to usual remedies for this disease.

Some authors of high repute, have expressed it, their opinion that indigestion was the principal cause of scurvy.
That the digestive organs failing to perform their proper function generate unhealthy bile, and that of one vitiated blood. This appears to be inconsistent, to me at least, for the appetite and digestion in a majority of cases, is good as in health, till near the close of the disease. Some have found fibrous deficient, others state that the red corpuscles of the blood are wanting, while others again, have found an insufficient quantity of albumen, and each has attributed the production of scurvy, to his own discovery. It is more than probable, that each of these particular conditions may have been found in the blood, but appears to me, to be a mere symptom of something else, or a mere effect of some unknown cause. But well marked cases have been seen, with lesions of the blood very wanting, showing that the disease might originate independent of them. The
question that would naturally arise, is, what is the cause of this malady, if none of the circumstances mentioned can be reasoned a priori. To expect we would say, that it was a want of some principle or ingredient of the blood, supplied by fresh vegetables, but what that substance is, remains for the chemist to say.

Diagnosis: There are few diseases which can be confounded. The one for which it is likely to be mistaken is purpura. This is confused identically the same by some authors, but there is a marked difference between the two. In the first place, scurvy depends on a want of fresh vegetables, purpura comes on often when there are most plenty. Scurvy begins in the latter part of the winter, and beginning of spring, purpura in the fall, or latter part of summer. I purpose then add, not exist a tendency to the formation
of them, painful tumors, as in scurvy. The gums in purpura cannot subject to swelling, redness or softness, as in scurvy. There is then pain, stiffness of the joints in purpura, as in scurvy. and the color of the spots in scurvy are said to be lighter than in purpura, especially in the beginning.

There is also a great difference in the treatment. Remedies that cure scurvy are found to aggravate purpura and to harm the whole, so obvious is the difference that we are compelled to look upon the two, as distinct diseases, arising from different causes, and requiring different treatments.

Local injuries are to be known by their character and the circumstances connected with them.

Some skin diseases are said to resemble scurvy, when they are connected with a state of the system similar to that found in septic or purpura. They, however, may be generally
known by this history and general symptoms.

Treatment. In giving an account of the causes of scurvy, we have necessarily anticipated its treatment, and perhaps no disease to which the human flesh is more vulnerable is readily to proper treatment. As this disease has been so common, it is reasonable to expect a cure of it by the use of fresh vegetables, to which the principal cause of the disease is due. In order to scurry, he would naturally expect a supply of them to remove the cause, and cure the disease. This is found to be true. Then the first thing to be done, when called by a case of scurvy, after giving such attention may be necessary for his comfort, would be to supply him with such vegetables as are known to possess an antiscorbutic property. It would remove him as far as convenient, from the place where the disease was contracted, as well as from every
Fasting causes. The vegetable matter most highly recommended is lemon juice. This should be given freely and at the same time, the patient should be supplied with such purinaceous and animal food, as he can best chew and digest. The meat in all cases should be fresh, as they are much easier to digest than any other thing. Among the vegetables best suited for this state of the disease, may be mentioned, the cabbage and potatoes. Cabbage in the form of sour cream, and potatoes with soup are good substitutes for harder vegetables, when the gums are sore. Garlic, celery, and lettuce, are said to be valuable agents in the cure of scurvy. The different pines, spruces and firs, are said to possess antiscorbutic principle. Milk has also been recommended, but has not sustained its character as antiscorbutic.
When, some of the malt liquors and vine, are also mentioned as having this property, and they may be given with advantage, if there is much debility, before moving the patient from his bed, which should never be done without great caution.

Little is necessary in way of medical treatment. If the bowels are obstinately confined, they should be relieved with an aperient, such as castor oil, or rhubarb. Astringents may be used for the purpose of checking hemorrhage. Opium to obtain sleep, if there is much restlessness. If the appetite is weak, bitters, and the mineral acids may be given with advantage. White, or a solution of the salt, has been advised. Cantharides have also been used, but these remedies have not the entire confidence of the profession. Mercury is said to be very painful.
tions, and if blood letting is
sought to, it should be with
great caution.

As a local remedy, a solution
of the chloride of lime; or very dilute
solutions of muriatic acid, may be
used for neutralizing the gums. A solu-
tion of creosote, may be used to
control the foetor arising from the
ulcers. Drawings of lint, soaked
in lemon juice, one part, water,
two parts, should be applied to
the ulcers, and covered with oil
silk, to prevent evaporation.