1837

A good and brief account of many particulars in the ancient premodern
history of the African Elephant,
including nonselective parts of the works
aspects caused in
Medical Dissertation

on

Chronic Lepra Yuber culosa

by

John Henry Beath
Index

Introduction

Nomenclature.

Diseases with which it is allied and useful. Its chief localities.

Its History

Biblical,
Ancient,
During the Middle Ages, Modern.

Its general characteristics.

The Premonitory stage.

The Periodical eruptive stage.

The Permanent eruptive stage.

The Ulcerative stage.

Extension to and from the mucous surface.

Mucoid anatomy.

Minute anatomy and chemistry of deposit.

Chemistry of fluids.

Complications.

continued
Introduction.

Lepra Ablabrum or the Elephantisid Spacorum, has, in the systematic nomenclature of most of the late nosological writers, been divided into two varieties, viz.

Lepra Tuberculosa, and L. Anaesthesia.

Of the former, there is a chronic and an acute form, but the latter is always chronic.

This is the best division that has as yet been made though it is neither practical nor scientific.*

First, because the denomination anaesthesia is fallacious, as this form always commences with hyper-esthesia, and the parts so affected, often remain for years insensibly insensible of touch.

Secondly, because sensibility in both forms is always lost after a variable lapse of time.

I have chosen the chronic form of Lepra Tuberculosa for the subject of
* Lilium medicinae *
my thesis as a subject both interesting and worthy of research; and for all the purposes of practice and illustration, it occupies an almost exclusive prominence.

Although this disease is now happily rare in this country, still practitioners are liable to be consulted by those who may have contracted the disease in climates less fortunate than our own. Of it, I have only seen two cases. The first, in a lady, sixteen years of age, born in Jamaica, of English parents, but soon after was removed to this country; she afterwards passed some time in a convent in the Himalaya mountains, but she had never seen the disease there. I had ample opportunities of noticing her pass through all its stages, the only symptom, in her case, worthy of mention, being that of the atrophy of the muscles of the fore-arms and hands, a symptom mentioned by Bernard Gordon,
Professor of Medicine at the school of Montpellier, at the commencement of the fourteenth century.

The second, in a young man, aged nineteen, under the care of Professor Syme, in March 1855, a report of which has been given by Dr. Broadbent, in the Edinburgh Medical Journal for November 1855;

the only remarkable point in this case being that he was born and bred in the island of Lewis, that his ancestors had been healthy for several generations, to the best of his knowledge, none of them having been affected like himself.

Great doubts rest on the cause of its present re-appearance in different quarters, as for example, a case lately occurring in a woman who came from Dunfermline.
by Professor Simpson on Lepery and Leper Hospitals in Scotland and England.

+Maladies de la peau H. E. Schedel et C. Genave page 2.

+Good's Medicine page 85-4.
Nomenclature.

The confusion in the nomenclature of this disease, which has prevailed at different times, from the variety of appellations applied to it by different writers, has now been frequently and satisfactorily explained, and is now well understood.

Its most ancient appellation, is that of "Psalám," applied to it by Pilot, meaning "the terrible disease," as the Jews looked upon it as a direct punishment from the Divine Being.

Its Arabic name was that of "Jugam," the literal translation of which is disjunction, from the dropping off of the smaller members in an advanced stage of the disease; by this name it is still known in Egypt, India, and Persia.

The Greeks called it "Elephantiasis," from the skin becoming corrugated and thickened like that of the elephant; this was one of the causes
of the confusion in the later translators, as the Arabians had already applied the term “Dal fil,” or the elephant’s disease, to that known to modern pathologists, as the Barbados leprosy. To distinguish them it became necessary to designate the former, the Elephas intoxicorum, and the latter, the elephantasis Arabian.

This was still further complicated by the Latin translators, who rendered the Arabic term lepra, lepbra, that is meaning to point out a severe cutaneous malady, but this term had already been applied by the Greeks to the bile squamous affection, rendering it also necessary to designate the former, lepra Arabianum, and the latter, lepra gynaecomum.

It received its ancient name of “Sementum,” or “Morbic lesionis,” from the development of tubercles in the eyebrows from a lionale expression, and Schyptleis from the seducer of

Dr. Dr.

[page 212]

of the cheeks, "atque ineptilem im-
pudentemque cocundi libidinem";
but more probably, according to Adams,
owing to the exposure of the teeth,
from the shortening of the lips, by
the formation of tubercles in them.
Lastly, I may mention that the
notices of leprosy in modern books
of travel, relate exclusively to Le-
proa tuberculosa, or the Lepra Media-
revi, as it is the source from which
the prevalent notions of leprosy are
derived.

Diseases with which it is allied and identified

As evidence is greatly wanted as
to how far the current identifications
are correct, until such is given the
present may be considered as mere-
ly provisional.

With the Aleppo, the Syrian and the
Crimean leprosy; with the Hungarian
Spudalska, so well described by Dan-
X Légèvres Maladies de la Peau


+ Government Reports of the Causes of death
ielsen, and with the same disease occurring in Iceland under the name Sk.

.tua, with the Psa-jung of the Chinese and the Catin, Kustan and Kitcha

of Hindostan; with the Mal vage de Bia-

cne and with the Black Depoy S-

It's Chief Localities

1. Norway. In the last century for Nor-

way, with a population less than that

of Scotland, 2000 were returned as af-

fected with it, about 1000 of whom were

in the Bergen district; and in a visit

lately paid to Norway and Sweden by

Professor Hebra, he found whole villages

full of Lepers.

2. Hindostan. There it is increasing to

a fearful extent; so much so that the

Lepers go in bands, and levy contribu-

tions, by threatening to defile the pri-

vate dwellings of its inhabitants; in

the Bombay Presidency, for the year end-

ning February, 1855, so many as forty
Niebuhr's Travels in Arabia vol II. p. 248

Brown's Travels in Africa page 332.


Mausden's Sh汕tia page 157.

Crawford's History of the Indian Archipelago vol I. page 34.


deaths were returned as having occurred from it.

15. Arabia. Among the Arabians, it is mentioned by Nebuchad as still very common.


15. Ceylon. In Ceylon very common.

16. B(scale) in Sumatra, and in the different islands that constitute this Indian Archipelago, very common, that an island was allotted for their exclusive use, and called Sepert's island. And at present it seems to be spreading along the coasts of America, as two hospitals have recently been established for the reception of Sepert. Though not now endemic in Britain it seems never to have wholly extinct as since the Middle Ages when it was common in Britain, every now and then cases have occurred up to the present in the Northern islands of Scotland.

Adams "Malaria poisons", page 205.

Numbers, chapter XII, verse 10.
Its History.

1. Biblical. This is the most ancient cutaneous disease of which we possess any record, as we find laws laid down for the recognition of Leprosy in the Thirteenth Chapter of Leviticus, about 1490 B.C.; under which name three distinct affections seem to have been included, viz.

The first, in which the constitution was equal to its cure and characterised by ulcerations, quick raw flesh, and depressed cicatrices; this is believed by some writers to have been leprosy, or the gaws, to which the description bears a striking resemblance. It was most probably the form that Phineas was smitten with for reproaching Moses, but on his intercession, recovered from it, after being excluded from the camp seven days. Most probably this form was estipated from the Jews by the prescriptive measures adopted during their
Second Wing (Chapter V).

Do — verse 15.

Do — verse 21.
long march through the desert, before they reached Palestine; for though we read of leprosy in after passages, it is evidently a different disease, as in the case of Naaman, for it must have been incurable, either by the powers of the constitution or any human means, or he would not have gone such a distance to get cured. This also seems probable from the exclamation of the king of Israel, "Am I God, to kill and to make alive, that this man doth send unto me to recover a man of his leprosy?" and from a miracle being required to cure him. Besides, the universal whiteness which was considered as a recovery from the former, appears to have characterized the worst stage of this form, for after the malediction of the prophet, his servant went out with Naaman's leprosy, "as white as snow." This, in all probability, was the (third form) Leuce of the Greeks.
+ Chronicles II. Chapter \textbf{XXVI} and verse 20th.

+ Leviticus Chapter \textbf{XIII} and \textbf{XIV}.

+ Kings II, Chapter.

+ Luke Chapter \textbf{XVII} verse 11 et seq.
The second form was considered also incurable, and was characterized by brownish elevations, and especially, its breaking out on the forehead, as in the case of King Uzziah.

It is very evident, that the fear of the Jews for it was great, as they looked upon it, as a direct punishment from God, and their ignorance of its true nature, profound, as they mistook for leprosy the mould, scurf, or filth that adhered to their garments, and the mould upon the walls.

We also find a number of instances of lepers banding together, as four lepers were refused admittance, during the siege of Samaria; and the lepers met our Saviour at his entrance into a village, and stood afar off, raising their voices, and begging for mercy, the cleansing of lepers being among the miracles performed by him.
II. Ancient

1. Arabian. 2. Greek. 3. Latin.

1. Arabian. - This disease seems to have been known to the Arabian physicians. A very circumstantial account of it is given by Avicenna (but the accounts of ancient writers are hardly worth mentioning); he considered it, like most ancient writers, as a cancer of the whole body, arising from black bile. Albucasis gives an account of the burning the head for it. But it is most minutely described by Alkahwanus.

2. Greek. - Albucasis gives an overstrained account of it; The disease, he says, is called elephas from its magnitude, leontium from the resemblance of the eyebrows to those of a lion, and satyriasis from the...
and Aetius observes "Elephantiasis
quidem a magnitudine et diuturnitate woman acceptit." He thought
that men were more liable to it than
women.

3. Latin. The earliest notice that
we possess of this disease, is that
by the poet Lucretius, who adopted
the common opinion and thus describes
its origin:

"Est elephas modulus, qui propria fluctuabilis
sine ignited Egypto in mediis, quae praecipuus
est."

Celsus describes it as a chronic disease
almost unknown in Italy.

According to Pliny, it was never known
in Italy till the time of Pompey the
Great, when it was imported into Egypt, raged for a time, but soon
became extinct. It is thus described
by Lucius Samosaurus at the begin-
ing of the third century:

"Est elephas modus testic quo rinitm dito
in eolum torpens invidios or sapulit
led into præcipitane functos praecipues."
During the Middle Ages,
from the tenth to the seventeenth century, it prevailed as an epidemic in almost every district in Europe, many of the leper hospitals or lazars houses still remaining, which were then instituted for the reception of those affected, but from the accounts, the disease was so imperfectly understood, that many different cutaneous diseases were received into them; France alone being the only country in Europe, in which a record of them has been kept, so that at one time there appear to have been in France alone about 2,000 lazars houses, and according to Matthew Paris, there were 1,000 monasteries in Christendom in the year 1244 A.D. the order of Saint-Lazareus being instituted to watch over the sick.

Within the last fifty years it has, in different quarters of the globe, been studied, and its pathology advanced.
by various authors. By Robinson, who first directed attention to the anesthetic form. By Mason Good, who, from his knowledge of oriental languages, greatly aided the unravelment in the nomenclature, from the confusion into which it had fallen. By Danielson and Boeck in Norway, from their extensive observations and clear reports of the disease. Besides, by many others, who have each yielded their quota, so as to enable us to combine and form an idea, though still an imperfect one of the disease.

Its Symptoms.

I. Its general character. The most prominent sign is that of an exudation into cutis, mucous membrane, and subjacent cellular tissue, followed by degeneration, and more or less structural change, being the effect, and exponent of a specific constitutional derangement.
II. The premonitory stage

The accession of this affection, is distinctly marked by a series of precursory phenomena, extending for an indefinite period from weeks to years, before the more prominent characteristic marks make their appearance. At first, the patient complains of a feeling of lassitude, mental and bodily weakness, and stiffness of the limbs, with a great desire to sleep; these being followed after a variable lapse of time by the usual symptoms of febrile disturbance, followed by a rash as in the exanthemata.

III. The periodical eruptive stage

The rash which follows these symptoms, consists of irregular disseminated patches, varying in size from that of a pin's head, to that of the palm of the hand, possessing a shining, oily appearance, and the sensibility of which is generally blunted, but often preceded by tenderness.
These disappear after a few days or weeks, but unfortunately only to be succeeded by the same chain of symptoms again and again, thus alternating throughout as long a space sometimes as five years, only time returning in a decreased form until at last the patches become permanent and confluent, and do not disappear on pressure; although all parts of the body are subject to the eruption, for the most part it occurs on the face and shoulders.

IV. The permanently eruptive stage.

The retrocession now so largely occur, the smaller spots thickening into tubercles, especially on the eyebrows, alae of the nose, and lobules of the ear, and rarely are entirely confined to the lips. The tubercles are very irregular in shape, and vary in size from a pea to an olive, of a livid or reddish appearance, smooth and shining and soft and yielding to the touch.
The deposit in the eyebrows, is the cause of two pathognomonic signs, which have long been considered diagnostic, both by the learned and the unlearned. By the peculiarity of the expression and the whitening and dropping off of the hair, which has been ascribed to the compression of the nutrient vessels, the hair occurs as the whiskers, beard, and cilia, the first two of these and the pulses never being developed or if so scantily, when the patient is affected before the age of puberty. The tubercles when they occur on the extremities are usually found on the inferior part of the thighs and around the ankles never attacking the scalp, palmar of the hands or the soles of feet.
V. The Ulcerative Stage.

At this period, the tubercles after remaining stationary for a longer or shorter period become affected with inflammation, suppulate, and become the seats of foul ulcerations occurring at their summit yielding a fluid, acrid and ichorous, which dries into dark adherent crusts, which are seldom followed by calcification. The ulcerations about the toes and fingers sometimes leading to ephacelus and sloughing off of the phalanges. This is the last and most distressing stage of it considered as a cutaneous disease.

VI. Its extension to and from the mucous surfaces.

The mucous surfaces seem to be alike affected with the cutaneous as generally succeeding the cutaneous ulcerations, deep extensive and destitute
Two ulcerations of tubercular deposit in the mucous membranes occur, as of that on the tongue destroying the sense of taste, of the buccal cavity, of the hard and soft palate, and of the uvula, spreading up the nares, destroying the septum, producing a never-failing symptom of ozena, and destroying the sense of smell, and down the larynx, infiltrating the laryngeal mucous membrane, impeding the breathing, and reducing the voice to a hoarse whisper, and at last destroying the thyro-arytenoid ligament. Lastly, the eye becomes the seat of a preeminently specific character, the conjunctiva becomes congested, and the sclerotic has a peculiar lack-luster discoloration, and becomes the seat of the exudation gradually encircling and invading the cornea, which becomes dim, the deposit increasing, fills the anterior chamber and causes an increase of bulk, the mass having reached
its maximum, softness, and the eye is lost. The pain ceasing, and the eyelids closing, the pupil, as long as visible, being angular. With the exception of the local disease, the patient may retain a tolerable degree of health, as the general organic functions are not materially impaired, but he is at last carried off from debility, generally preceded by intractable colliquative diarrhoea. The "libido inceptibilis," which has long been laid down by writers as a symptom, has not been verified, though acknowledged to occur in a few cases probably from the debarment from society which they lie under; from the cases recorded by Adams, it seems that when a male is attacked before puberty, he never attains that state; and that such as are affected in after life, gradually lose the power of procreation, which seems corroborated by the a-
Schilling, Valentini, Raymond, Sassy
Biett, Brunes, Havelock (S. Brazil)
and last but least Danielsen and
Brock (S. Norway).
trophic of the testes. Defective organization being scarcely less striking in the female, the labia minora and labia pudendi disappearing and frequently also the breasts.

Morbid Anatomy.

Pathological researches into the nature of this affection have not been wanting, though we are still far from comprehending it. The morbid anatomical signs are chiefly from the exudation into the cuticle, the mucous and acinous tissues, and the parenchyma of certain organs. In recent cases, the skin and external organs are for the most part only affected, the internal organs being involved in cases of long duration. At first the skin is only remarkable for its unusual regularity, and afterwards thickened according to the amount of tubercular deposit, which is sometimes found in the cutis and at other times
in the subjacent cellular tissue, which, on being cut into, is found to be dense, of a brown colour, and yielding a viscid sanguineous fluid. At the ulcerated parts, the cutis vera is found to be destroyed, and the parts which have receded from these are found more or less shrivelled. In this variety, we find the intermuscular cellular tissue entire. The veins and external sheaths of the nerves running through the tubercle, are found thickened by the inflammation and phlegm. It states that the lymphatics passing from tubercle to tubercle are enlarged. The gastro-intestinal mucous surfaces present almost the same appearances, being tuberculated at some, and ulcerated at other parts. The ulcerations frequently existing on Peyer's patches, and often, according to Danielsson, being so deep as to destroy all but the peritoneal coat. But found the mucous membrane softened, but
be looked on the tubercles he found there as phthisical, but in reality they do not differ from the tubercles found in other parts of the body. The loss of many of those affected being attributed to the ulcerations occurring on ileum, cecum, caecal valve, and colon.

The serous membranes are frequently the seat of tubercular exudation and ulceration, being often found corrugated and contracting the subjacent substance. The outer coat of the arteries nearest the cutaneous or mucous surface are found the seat of lardaceous deposit; hence they have the appearance of having been propagated by extension. The same applying to the neurilemma of the contiguous nerves. The cephalic medulla, spinal cord, and their membranes being comparatively uninjured, but Danielian mentions that the ganglionic system is so affected that the cardiac vessels and ganglion have been found confounded
in one homogeneous mass, wherein the minutest investigation could detect neither vessel nor nerve. The kidneys are pre-eminently affected, as they are found disorganized from the breaking up of deposited tubercles; the same also being found in the liver and spleen, the latter being often found enlarged. The pancreas is generally healthy. The glands of the mesentery, and of the bronchi being often infiltrated. The parenchyma of the lung never being affected. The blood, thick, viscous, and dark-coloured.

Minute Anatomy and Chemistry of deposit. The deposit in all parts of the body has the same chemical and microscopical composition. The tubercle, when newly formed, consist of a fine fibrous mesh-work containing a number of whitish granules with one or several nuclei, a little fat and some deformed blood globules. The adipose tissue beneath the cutis, the hair follicles, the subcuta-
The function of the endocerous glands being greatly increased.

Wedl's Pathological Histology, p. 384.
one (and sebaceous glands) having dis-
appeared. At a later period, when it
has become brown, the fibrous network
and granules disappear and an ex-
traordinary abundance of cells are ex-
hibited, of an oblong form, containing
a large nucleus of a grey colour and
presenting usually 4 or 6 brown granules.
And when still farther advanced, the
softened nodules contained merely au-
damorphous molecular mass with rem-
nants of cells and nuclei. The
black crust becomes a residue for mil-
thions of acari, where they are seen in all
stages of development, and the crust,
according to Danielsen, almost en-
tirely consists of the remains of
dead acari, glued together by a vis-
cose fluid. Before softening it con-
tained fibrine and albumen in large
quantity, fat and salts; after soften-
ing, it contained less fibrine.
Chemistry of the fluids.
If this at present there is very little known. An analysis of the blood was made by Danielsen and Boek, after the method employed by Simon, and come after the method of Becquerel and Scherer, which gave analogous results, proving that a specific paquinicum lies at the foundation of the malady; it proved that there was fibrine and albumen in excess, being richer in fibrine at an early period, and at a later period, richer in albumen. Albumen being found in the urine in the last stages.

Complications.
Complications are by no means rare. Danielsen states that the tuberculosis is complicated with the anaesthetic form in one out of every six cases, and that the anaesthetic becomes nodular in one out of every twenty cases; it is therefore necessary to clas-
* Good's Study of Medicine
* Rayer, Mal de la Peau
ify them according to whichever one is dominant. According to Robinson and Larry, The Elephantiasis Arabum or the Barbadoes lep. is by no means an uncommon complication. Chronic cutaneous diseases are frequent. Variola has been noticed by Schilling and Danielsen. The true tubercles of Scrofula are not unfrequently found in the lungs and mediastinum, and a number of others have noticed by writers, as diarrhea, dropsy, pneumonia.

**Etiology.**

By most writers it is acknowledged to be hereditary, as, for instance, Adams and Heberden ascertained that it occasionally descended through several successive generations. Its occurrence in some places is accounted for, by its having been transmitted hereditarily, after being imported there. As to its being contagious, all the best authorities concur that it is
Dumbarton.
Lectures of Professor Laycock.
not so, their proofs of its being as being all negative, some few however believe it to be contagious from two or three instances, in which it seemed to be and from the practice of seclusion among every nation for upwards of 3000 years. In such a frightful malady therefore the very doubt demands that every possible precaution ought to be taken. The chief exciting causes are residence in low, marshy districts, where it is endemic, the want of cleanliness permitting the accumulation of corodes on the skin and from improper diet, as the taking of indigestible food, smoked or dried fish, pork, and the prolonged use of salt provisions.

**Duration**

Danielsen, between 1840 and 1847 at St. George's Hospital at Bergen, ascertained that the mean duration of this form was 9.5 years, but Ledgeave
states that it varies, from 7 to 15 years. But in hot climates, as may readily be supposed, the duration of this affection is much less.

Influence of Age.

Little of this has been mentioned by writers except Daniela, who found hearsay evidence of children being born with the spots of tubercular leprosy, but undoubted testimony of their having sickness from it during their first months of life. The following is a concise table given by him:

From birth to fifty cases.

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And none above 60.
Influence of Sex -
Most authorities consider the sexes nearly equally liable to be affected, but Cazenave, men most liable, and from document examined by Adams, it appears that in the course of a century, 526 men and only 373 women were received into the Lazaretto of Kunchal, a difference of about one third in favour of females, and in the Bombay Report, for the year ending February 1855, the deaths from Septa Tuberculosa were 27 males and 15 females.

Diagnosis -
It might easily be imagined that the diagnosis of a disease with such obvious symptoms and stages would be a matter of no great difficulty, but error is very liable to occur, previous to the characteristic tubercular stage. The history of the patient must not be neglected, as the absence of the best
Syphilitic contagion would distinguish it from syphilitic spots, tubercles, and ulcerations; from erythema and ephelides, chiefly, from the want of sensibility in most and the abnormal evaporation in other cases; from molluscoid tubercles, by their never appearing with symptoms in the order formerly mentioned, their occurring in groups and being filled with an atheromatous matter. From tubercular lupus, by their being confined to the face, livid colour, sensibility, and spreading nature when ulcerated. And lastly, the disease with which it has been confounded, from the confusion in its nomenclature, viz., Syph. vulgaris and The Barbadoes syph.
early stage; only then may some slight
hope of a favourable change be enter-
tained, as there can be no doubt that
this is one of the most severe of
maladies, terminating fatally soon-
er or later, with very few excep-
tions, which undergo a favourable
change, the tuberca terminating in
resolution, and the ulcerations re-
remaining after their supersession,
healing under scabs, and leaving
permanent scars behind them.

Treatment

I. Prophylactic. II. Curative. III. Cal-
licitive.

I. Prophylactic. As there is no deny-
ing that this disease ought to be, and
it is ranked among the almost hope-
lessly incurable diseases, as there are
few authenticated cases of cures and
even these, purely from the hand of Nature.
Too much stress cannot be laid upon its
prophylaxis; first, in those who may
have an hereditary predisposition to it; and secondly, in those who may be living at a place where it is endemic. From those who may be hereditarily predisposed to it, we must remove as far as is in our power, all exciting causes; and for the acquisition of this end, the most obvious means would be removal to a climate unfavourable for its development, and to maintain, as far as possible, the integrity of the circulating fluids. And for those who may be compelled to live at a place where it is endemic, we must improve the general sanitary condition by proper hygienic measures, as by improving the dwelling houses, seeing that they be dry and comfortable, and properly ventilated; and next, by seeing that they wear proper clothing, take the requisite amount of exercise, and have a good nourishing diet, and lastly, cleanliness, by daily cold water ablutions with friction and occasional use of the warm bath.
To insure perfect cleansing of the skin, as it acts also as an excellent tone and guards the body against the cutting cold, a thing of no little importance, seeing how liable the skin is to suffer in this affection.

II. Calculative. At the favourable time in a therapeutical point of view, too passes away, the attention of the practitioner, when there is a possibility of its occurrence, should be sedulously directed to the recognition of this affection in the first stages, as then only can a reasonable hope of a successful issue be entertained. When first recognised, change of climate is immediately advisable; the febrile attacks being treated on the ordinary principles at rest in bed, pure air, cooling drinks, diaphoretics, gentle caloric applications, and pharmaceutical food. As the skin and mucous membrane are so very liable to suffer, the greatest care must be taken to guard them against the effects
of heat and cold. During the intervals between the febrile attacks, will be the time when we ought to bring the remedies which we consider most suitable, to bear upon it and these are a well adjusted tonic regime and tonic alternatives.

The chief treatment adopted by Dr. Daniel, has been directed to the excess of albumen and fibrine in the blood, but he satisfied himself was the materia morbi; for this he restricted his patients to vegetable diet; besides this he gave steam baths every second day to excite the secretions of the skin, and tried many remedies with very variable success, as the patients seldom presented themselves before the disease was too far advanced; he found the tannate of antimony of most service, as it diminished and rendered more regular the superficial circulation, but when long employed it invariably caused chronic diathesis. From the long list of remedies which have been tried in different countries,
*Long used by the native Indian Physicians with benefit and even cure. Good.* p. 860.
a few, (though they proved most mischievous in other hands) may be of great benefit, as for example: arsenious acid during the intervals of the periodic hectic stage, would most probably be of benefit from its tonic, febrifuge, and alterative virtues, with the patient kept under the eye of the physician. To prevent its use farther, than the first symptoms of the development of its physiological action, if mercury is used at all in this affection, it would be best not to use it farther than for its alterative effect. These, with testimonies combined with such alteratives as Sarca Pasilla, cass, astrac and mezereon. In the East Indies, the calothropic pisonlea (modas or modas) has been employed with benefit, in America, several varieties of decipients; and in Canton, the seeds of one of the flaca -
Trachea, known as the Charl moza in Eastern Asia.

Palliative. When the disease is so far advanced, that the mucous membrane has become affected, the chance of cure is so very slender, that attempts to effect this should be abandoned, and our whole attention be directed to pro-long and soothe the remaining period of the patient's existence; this palliative effect will be obtained, by the tonic treatment I have already mentioned, by light, nutritious, and easily digested food, demulcent drinks and the use of speists; the bromides and iodides have a favourable effect on the tubercles, and in this state, Dr. Wood would hope, that benefit would be derived, from the internal use of the saltpate of limes—

The principal topical treatment, that has been tried and recommended consists, in the employment of vapours.
bath, and insufficiency liniments, as of the preparations of iodine, and sulphur, a compound of these, the iodide of sulphur, being recommended by the geniuses. Besides these, repeated blistering, and cauteryization, have been tried and found of benefit.