AN INAUGURAL DISSERTATION
ON
Scarlatina
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BY
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To

W.K. Bowling M.D.

Professor of Institutes and Practice of Medicine in the Medical Department of the University of Nashville. To Alike Distinguished as an accomplished Teacher, a Skilful Physician, with feelings of admiration for his liberal and independent principles, and gratitude for his exertion in the Medical Science. This Thesis is Respectfully Inscribed By Thos. H. Roddy.
Scarlatina

This disease is so denominated from the peculiar florid appearance of the skin which usually accompanies its various forms. Scarlatina Fever is a febrile contagious disease frequent in occurrence in Europe in its primitive and often fatal in its termination.

Writers usually divide Scarlatina into three varieties, namely, Scarlatina Metis, Scarlatina Anginiosa, Scarlatina Maligna. These varieties are however to be regarded as the same disease marked by different degrees of violence. Scarlatina Metis — is the most benign form of Scarlet Fever in a large majority of cases. The patient is not confined to bed often. The first manifestation of disease is the eruption with scarcely any fever. No inflammation of the throat or faucets, there is troublesome itching burning.
Scarlatina

Sensation of the skin. The disease begins about the fifth or sixth day. Occasionally, the rash is preceded or accompanied with chills and fever or slight pain in the head, back, and limbs with some debility. Movement sounds of the throat, tongue coated with a white fur; the Pulse quick and weak. But unless from intercurrent inflammation or some hidden malignancy, there is little danger or risk of life.

Scarlatina Anginosa

This form of Scarlatina is characterized in the early stage of the disease by sonorous of the throat, rigidity of the jaws with a sense of constriction and difficulty of deglution. The primary symptoms as simulating those of the mild variety.
Scarlatina

Characterized by greater violence than the febrile symptoms, raising high fever and vomiting great oppress on considerable anxiety. The inflammation of the fauces increases as the disease progresses. The throat affection increases the voice changes and becomes hoarse. There is a quantity of thick, vivid mucous secreted in the fauces which is troublesome and difficult to discharge. On examination of the interior of the mouth we find the uvula, palate, and whole fauces intensely florid and tumefied. The tongue covered with a white or brown fur on the center whilst the edges and tips present a vivid red color. Tending upon its surface is peculiar elongated projecting papillae occasioned by the inflammation of the mucous.
Scarlatina

Membranes extend back along the Eustachian tubes cause partial deafness and along with the interior disease there is more or less swelling of the external parts. The neighbouring glands the parotid, submaxillary, and lymphatics of the necks being congested, high inflammatory action supervenes, leading on to suppuration in many cases requiring deep incisions to evacuate the pus. In the meantime, sloughing and ulceration takes place in the fauces. Deglutition very painful and more difficult, and when attempts are made to save fluids of any kind they are immediately forced back through the nostrils and associated with these symptoms there is ichorous yellow fluid discharged from the mucous membranes of the nose exsorulating the surface as it passes over it.
Scarlataina

In the course of the disease the disease the tongue cleans off leaving the surface of a bright red glossy appearance till presenting the characteristic papillae on its surface. The mouth is dry considerable demand for water. The breath very offensive. The disease till Marching on ward it soon takes on a Typhoid character. Dark spots form on the teeth. The lips become socal the paroxysms become slight. and gangrenous. The jaws more rigid the breathing more difficult. The pulse feeble and quick. The skin dry and harsh assumes a purplish appearance. The eyes sunken and languid. The extremities cold. The head and body worn down. The vital movements with feeble tendency to delirium during the exacerbation of fever the disease progressing without any abatement. The patient sinks from
Scarlatina

Dearth in the second or third week of the
disease or if he recovers it is after a long
Iong and with a shattered constitution
But in more favorable cases the disease
May run its course without manifesting
Any alarming symptoms continuing
For ten or fifteen days and even longer
And then terminating in health.

The decline of the cause takes place
About the fifth or sixth day. The fever subsides
The inflation of the fauces ceases
The swelling of the neck disappears
And the patient with care is soon restored
to his usual health.

Scarlatina Maligna

This is a highly aggravated form of scarlat
Fever characterized by extreme prostration
Of the muscular and vital forces in the very
First stages of the disease often the patient
Is overwhelmed and prostrated by the
Scarlatina

by the violent force of the disease often in the beginning the patient is attacked with symptoms of high cerebral action coma Delirium great oppression intense anxiety pulse feeble irregular at times scarcely perceptible the skin either cold or hot tongue covered with white or brown fur the breathing hurried with but swelling of the throat

The eruption coming out late is pale and indistinct arranging itself in patches of various size over the surfae soon turning of a dark livid color an unless there is a speedy and favorosable change the patient dies on the third or fourth day

where the symptoms are of less degree of violence or greater energy of the system the early symptoms may
Scarlatina

Assume those of the anginae variety serious pain in the head, back, and extremities with comatose symptoms slight delirium in the evening; exacerbation of fever, the pulse quick and feeble, the efflorescence in a few cases standing out boldly, but in most cases appearing scantily with dark blood spots, intermingled with it, presenting a pulsating appearance of the skin. The throat becomes soar and swollen; the cedations of the fauces are of a dark, clinging hue, sometimes black, deep, sloughing. Takes place deglutition extremely painful. The tongue coated with a dark brown fur; dark cords form on the teeth. The lips are sore, sometimes bleed when opened. The thick, vivid mucus secreted in the fauces very troublesome, and acrid discharge from the nose sector of
Scarlatina

the breath sometimes diarrhoea and
haemorrhage from the rectum. The disease
still progressing onward the system-
gives way collapse takes place the extrem-
ities cold, features sunken and glass-
ly the eyes become vacant and listless
a cold clammy sweat. Some cases
involuntary evacuations death clos-
ing the scene in the first or second
week. Occasionally cases are
conducted through those alarming
symptoms and ultimately recover
but the larger majority terminate
fatally

 Sequelae

probably no disease leaves such
a train of evils as scarlatina.
children especially are liable to fall
into a state of bad health chronic
sic diseases of the skin troublesome
Scarlatina

Sores behind the ears chronic inflammation of the eyes Troublesome abscess from the ears Schopulous Tumours Swelling of the larger joints accumulating Subacute Phrenatism But far the most common regular is oedema in it various forms especially anaesthesia it may follow The mild as well as the more severe forms of the disease Oedema is generally attributed to the premenine exposure to cold during the period of Desquamation before the process of hardening is complete There is no doubt that cold has some agency in producing oedema but that other causes are essential to it existence There is no doubt as we often see oedema where there was but very little disease of the skin and no exposure to cold known to have existed
Scarlatina

During the existence of Scarlet Fever, the secretion of urine is deficient; scanty, containing a large quantity of albuminous matter, and sometimes blood, denoting a congested and a highly inflamed condition of the renal organs. The secretions of the kidneys, as well as the skin being obstructed, there is not a sufficient quantity of serum eliminated from the circulation. Thus, a mechanical obstruction to its natural outlet, the serum seeks a new channel. Consequently, there is an infiltration of the subcutaneous areolar tissues, and sometimes of the larger cavities.

Anatomical Lesions

Of the pathology of Scarlet Fever not much has been written. After no lesion of any kind are perceptible, which
Scarlatina

can explain the cause of death again in other cases. The mucous membranes of the alimentary canal not unfrequently leave traces of inflammation. The kidneys also exhibit signs of engorgement and inflammation.

The solitary or isolated gland are found enlarged and softened. The appearance of the skin varies sometimes it remains of a purplish color; then in other cases every trace of the eruption disappears. The cuticle sometimes separates as if a blister had been applied. The blood sometimes changes from the normal condition.

Diagnosis

In the early stage of this disease before the appearance of the rash there is no reliable sign by which it can be distinguished from any
Scarlatina

Other febrile disease until after the Eruption makes it appeared even then it is liable to be confounded with some of the other cutaneous diseases especially Rubecular these complaints approach each other very closely in their natural characters.

Efflorescence an inflammation of the cutaneous surface is characteristic symptom of both diseases. In practice it is all important to discriminate and distinguish these diseases one from the other.

Now in Scarlatina the Eruption breaks out on the second day of the febrile stage generally appearing first on the body in patches of minute points or papilla of uniform size gradually coalescing makes the peculiar scarlet blush then extending its self over the whole.
Scarlatina

Surface the skin is smooth to the touch not being raise or elevated perceptibly the rash is brighter when the surface is covered than when exposed hence we usually see the eruption more intense about the flexure of the joints. If inflammation of the mucous membranes of the eyes and nose exist which generally is the case there is no secretion that is sair the force red an inflamed without any cough or expectoration in Measles the eruption appears on the fourth day of the febrile stage the rash being succeeded by ophthalmal symptoms. The membranes of the eyes and nose inflamed with watery secretions sneezing coryza the cough at first dry and harsh subsequent expectoration the efflorescence occuring in crescentic
and circular patches with intervening unaffected portion of skin. The color is of a crimson--darker red. Then Scarletina composed by writer to the raspberry hue interspersed with red papules of various sizes elevated and rough to the touch. The rash is brighter where the surface is effaced than where it is coarse.

Causes

The cause of Scarlet Fever is a specific contagious animal poison elaborated in the human organism and is communicated through the medium of the atmosphere or by fomites. This is however disputed by many writers. Amongst them the late Dr. Dervis, who says there have never been any decided proof of its having communicated itself.
Scarlatina

in a single instance on the contrary I am strongly disposed to doubt its contagious quality. This opinion may have been formed from the fact of it prevailing as an epidemic and its propagation being attributed to the mysterious agency of such diseases. But however much its propagation may be affected by an influence of this character certainly it primary cause is of an infectious nature and like other eruptive fevers to which it is closely allied it des Troms the susceptibility to a second attack. It is a question unsettled I believe at what period of the disease the contagion is most active and what length of time the patient retains the infectious properties but it is
Scarlatina

an active poison and retained away considerable length of time it is often conveyed by the physician and nurses from one family to another and it is asserted by writers to be retained in bed clothing furniture for weeks or even months.

Diagnosis: As regards the prognosis of Scarlet Fever it will be much influenced by the character of the prevailing epidemic. At times, the mildest cases appear suddenly to assume a malignant character destroying the patient in a very short period and again there are other cases in which the patient will recover where the symptoms were truly desperate and life almost despaired of. Therefore we should be cautious. Mild Scarletina is
Scarlatina

Directed of danger when it passes regular
though its course it may however be modified
by complication or retrocession
the prognosis is unfavorable when the
disease commences with Delirium or coma
Taste symptoms with a purplish color of
the cuticle these patients generally die on
the third or fourth day a sudden fading
of the eruption or Tumig of a dark
color the pulse rapid and fluctuating
the forces assuming a livid appearance
are very unfavorable symptoms
But if the patient survives the eighth day
without any decided alarming symp
toms the eruption fading desquamati
on take place the pulse becoming
quiet and regular the fever sub
dsides swelling of the neck and infi
sation of the fauces passing off the
patient in all probability will soon
Scarlatina

Recover if he escapes the sequela
a common after this disease
treatment.

In the mild form of this complaint
gen little medicine is required. The
the plan of treatment to be adopted
should be of the simplest kind. The
patient should be confined to the
house. The sick room should be
kept comfortable and well ven-
tilated. If the bowels are consti-
tated give a milk purgative and
keep the bowels open. Give the
patient plenty of diluent and
acidulous drinks. The diet should
be light and stimulating.
in the decline of the disease if
there is any signs of debility
then the Tonics should be admin-
istered and instructed the patient from
Scarlatina

Takings conta In the angina
d variety the same general plan of
treatment should be perused
Commencing the treatment with
an active cathartic that will
excite secretion and will relieve
or prevent congestion of the
great internal viscera and noth-
ing would seem to answer this
purpose so well as Colonel
or Colonel or combined with
salad followed if necessary
in eight or ten hours with
a saline purgative and then
keep the bowels gently open
with mild aperients If the skin
be excessively hot great relief
will be obtained by fanning with
cold or tepid water or vinegar
and water the disposition to

Scarlatica

Nausea and vomiting should be checked by the effervescing and neutral mixtures. The patient should also take a moderate quantity of cold drinks. If the secretion of urine is scanty, the kidneys may be aided by mild diuretics. Though they must be used with caution or they may add to the existing congestion which they were intended to relieve. But, the most urgent symptom in the angina-paucity is inflammation of the mucous membrane of the fauces. This should be met with by local remedies as the various gargles. If the affection is trifling, mild musaceous or astringent gargles will be sufficient. But when the fæces becomes sloughy and garga...
Scarlatina

general with pseudomembranous exudations accompanied with external swelling of the throat. The more stimulating application are required as the capsicum infused with vinegar and common salt. Nitrate of silver Sulphate of zinc weak solution of Kreosote and the Chloride of Soda are valuable remedies for cleansing the foul ulceration of the fauces. Stimulating Embracations to the throat externally. Smythions and Digitalis. Brewer's yeast given in Table spoonful doses every three hours is said by an invaluable remedy if it has Diuretic checks with opium.

We should ever be on the lookout for symptoms of depressions and meet these with prompt and appropriate remedies. In the Malignant form of this
Scarlatina

disease the general practice is the same as in the preceding or anginose variety. In this form of Scarlatina often all our efforts are in vain the violence of the poison on the nervous centers is so great that the patient dies in state of collapse in the very first stage of the disease. If anything can be done for such cases it is by the free use of digestive stimulants.

The diarrhoea, dropsy, and the various other sequelae that so often follows Scarlet Fever must treated as if they were original Diseases taking into consideration the condition of the system and treat the symptoms as they present themselves.