"Hemiglossitis -

The History of Two Clinical Cases:
One Right-sided and resulting in Abscess -
With Remarks."

By

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Were it necessary to give a reason for selecting Hemiglossitis as a subject for a Thesis it would be sufficient to state that there exists a great dearth of Literature on this very uncommon and highly interesting affection, for although in Books devoted entirely to Affections & Diseases of the Tongue some fairly good and extensive accounts are given yet in some of our most exhaustive and most widely read Surgical Works the Affection is not even named. Thus, in such Classical Works as W. Erichsen's Surgery, W. Heath's Dictionary of Practical Surgery, W. Spence's Surgery, W. Keetley's Surgery, S. Quain's Dictionary of Practical Medicine, and other works which might be mentioned - no account of this Affection is to be found. Again, W. Butlin (Diseases of the Tongue, Cassells & Co) & Sir Dyce Duckworth (in Liverpool Med. Chir. Journal July 1883) give the two best and most exhaustive accounts of this Affection which I have been able to obtain and consult. Again in the issue of St. Gravis Clin. Medicine by the New Sydenham Society, Vol II page 224,

a very interesting case of this Affection is given but as I have incorporated the Clinical History of this Case in this Thesis no further particulars need to be mentioned here.

Seeing then, that so few Clinical cases of Hemiglossitis have been fully recorded I have selected that affection as forming a subject pre-eminently worthy of consideration for a Thesis and that the more so as I can record Two Clinical Examples of the Affection which have occurred recently in my own private practice, one of which constitutes the first recorded case where the right side of the Tongue was inflamed and resulted in the formation of an abscess, while in the other case the Left Half of the Tongue was inflamed and resembles somewhat the other cases recorded. Both cases, however, present symptoms and other points which are highly important in studying many of the features of this rare and interesting Disease.

I will be better at the Outset to give the Clinical History of the Cases referred to and then follow a regular course in studying the affection from various points of view, such as Causation &.

Clinical History of Case No I

On the evening of April 16th 1886 I was consulted by Mr. C. a young man, 23 years of age, who stated his complaint as follows.

Four days previously, he had been driving in the country and was exposed for several hours to a cold east Wind, during which time he had no overcoat which he had omitted to take with him. In thirty six hours he began to complain of a sore throat & difficulty in swallowing, especially if he attempted to swallow solid food. Next Morning his tongue was tender on the Right side and especially on putting into the mouth any food either too hot or too cold or any highly seasoned substance. By occupation Patient was a Butcher. Hereditary Tendencies - Father died of Apoplexy, mother and sister alive and Well. Patient has never suffered from previous illness or accident, does not smoke and is a Total Abstainer. His General surroundings at home are of the very best but at his work he is much exposed to the weather especially when driving in the Country when purchasing his Stock. His height is five feet, his weight 10 stones. & he is Well-developed and muscular and of

a sanguine Temperament.
Temperature 100° F.

Systems -

Alimentary. When I saw the patient four days after the onset of the Affection he complained of difficulty in swallowing, even of liquids, severe pain at the angle of the jaw on the right side, pain in the right ear, in the right submaxillary region, along the muscles of the neck and corresponding portion of the Occipital Region and in the Right Half of the Tongue. On questioning the Patient he admitted that he had much shivering and Chilliness when he felt himself becoming unwell. His voice was distinctly "nasal" in tone and patient answered slowly in response to any Questions which were asked at him.
On asking the patient to open the mouth the teeth could not be very widely separated but the tongue could be observed impinging on the incisors and canines of both upper and lower jaw. Breath was very foetid and sordes coated the teeth. On my opening the jaws more widely the right half of the tongue was seen to be much enlarged, its Surface glistening in appearance. While stringy mucus was seen here & there over its

surface and also passed from its Edges to the adjoining teeth. The whole organ was covered with a white creamy fur and severe pain was felt when the right half was touched in any way. The mobility of the whole organ was much impaired both as regards protrusion and retraction, as well as, in elevating the tip of the tongue to the roof of the mouth. The margins of the right half were much indented from pressure by the neighbouring teeth and about the middle of the dorsal surface on the right side was a globular swelling, projecting towards the roof of the mouth. This swelling was semi-elastic, much more sensitive than the surrounding inflamed tissue and imparted to the fingers a sensation of there being fluctuation of however a deep-seated nature. The swelling was distinctly confined to the right side of the Tongue and was sharply marked off from the left side by the now unusually distinct median raphe. The left side was quite natural in appearance, and sensation. Patient also complained of profuse salivation in the right side and during examination it trickled freely and so made the Examination a matter of greater difficulty.

Patient also complained severely of Thirst but was afraid to take any liquids on account of the severe pain which the act of swallowing occasioned. Appetite was absent.

Fauces - on asking the patient to open the mouth as widely as possible and draw in his breath so as to depress the tongue as much as possible such parts of the Tonsils and Pharynx as were thus brought into view were seen to be acutely congested and inflamed but the Tonsillitis was more marked on the right side

Bowels were constipated.

Respiratory and Circulatory Systems - pulse 110 and respirations 36 per minute.

Provisional Diagnosis and Treatment.

The case was evidently one of Hemi Glossitis of the right side of the Tongue, with Faucial Angina. Patient was ordered to go home and keep his bed and on my seeing him later in the Evening he informed me that he had had a profuse Epistaxis which had some relieved him. The bedroom was kept comfortably heated, saline laxatives bleeding were ordered and then hot Linseed Poultices. The mouth was washed frequently with a warm and weak Solution of Condy's Fluid, and hot steaming

inhalations also recommended. Internally a bland and nutritious diet was given and also a mixture containing Chlorate of Potash, Tincture of Belladonna and Tincture of Iraiae.

April 17th Temperature 101° F, pulse 108, respirations 34, patient obtained no sleep from the severity of the pain during the night, slight Dyspnoea.
In the evening patient had a hypodermic injection of Morphia and Atropia.

April 18th. Had a better night, slept fairly well, still a good deal of pain, temperature 100° F. Can see allow a little easier. Patient now gradually improved and in three or four days the temperature was normal.

April 22nd. Tongue is still tender, swelling still present and fluctuation can still be made out so much so that on several occasions one was inclined to give the patient relief by incision. Throat now much better and deglutition and articulation are improved. Voice much less "nasal" in tone. In about twelve days all symptoms had disappeared and Patient returned to his Active duties.

May 6th.

Patient again presented himself today complaining of under the right side of his tongue which had occasioned him some trouble during the past few days.

On asking patient to open his mouth widely and raise the tip of the tongue an abscess could be seen about the middle of the lateral aspects of the right side just at the reflection of the mucous membrane from the right side of the organ on to the floor of the mouth. A small incision allowed the escape of about one teaspoonful of pus and gave the patient immediate and at the same time permanent relief. The patient has since then enjoyed the best of health and has never had any further trouble with his tongue.

Clinical History of Case No. 2

W. E. 18 years of age, dyer by trade, was seen on January 11th 1887, complaining of sore throat, painful swelling of the tongue, difficulty of swallowing and of articulation, and slight difficulty of breathing. Duration of illness - four days. Temperature (6. p.m.) 102.5° F.

History.

Hereditary Tendencies - patient has had several illnesses incidental to childhood but was in perfect health up to the date of attack from which he is at present suffering. His father and mother, two brothers and three sisters are alive and healthy.

Has always had plenty of nourishing food, is a total abstainer and a non-smoker.

Time, Mode of Origin and Course of Present Illness.

On January 7th patient complained of general feeling of illness, lassitude, inability for exertion and headache. Next morning he was worse, had a severe rigor which was followed by the onset of a sore throat with difficulty of swallowing and of articulation. On the 9th he was worse and on the 10th he began to complain of his tongue being painful and enlarged and his mother now becoming anxious asked me to see her son which I did on the 11th - that is the fifth days of illness.

General State - patient is about 5 ft. 6 in in Height, weight 9 st- 11 lb, fairly well developed and inclined to muscularity. Temperature (6 p.m.) 102°.5 F.

Systems.

Alimentary - lips somewhat cracked, teeth good and covered with sordes and between the teeth the tongue protrudes somewhat; viscid and stringy mucus is coming from the mouth and causes patient a good deal of trouble to get rid of it. On getting the mouth opened the Left side of the Tongue is swollen & glistening in appearance while its mobility both as to protrusion &

retraction, as well as elevation, is much impaired. When the left half of the Tongue is touched, patient complains severely of pain. The surface of the tongue is covered with creamy white fur and the foetor of breath is very marked.
Fauces - These show faucial angina as in the previous case but here the left Tonsil is more particularly affected. Saliva is increased in Quantity. The right side of the tongue is normal and sharply marked off from the left half.
Bowels are constipated.
Respiratory S - there is slight dyspnoea, respirations 36 to the minute, alae nasi working
Circulatory S - pulse 110 to the minute
Nervous S - Sensory - complains of severe pain in the throat, left half of tongue, left Ear, left submaxillary region and at the angle of the jaw on the left side. Also along the Muscles of the neck, in the occipital region. No deafness or Ear Discharge.
Diagnosis, - Left Hemiglossitis & Faucial Angina.

Treatment & Progress - patient was treated very much on the same lines as Case No I, but in Case No II, Leeching was omitted. In this

patient stimulants (port wine &c) were also rendered necessary by the existing depression. It is only necessary to record the temperatures observed and a few details.

January 12th. in morning temperature 103°, pulse 120, respiration 38. very little sleep due chiefly to severe pain in the left ear which has been treated by dropping in Morphia & Carbolic Oil. Has great difficulty in swallowing

January 13th. Temperature 101°.5, pulse 116, resp. 36 Bowels have acted freely, swallows & breathes more easily, slept rather better.

January 14th. Temp. 100° F, pulse and respiration becoming again more normal, pain in Ear & throat are easier, tongue still enlarged but is going down, still very sensitive to touch. Speaks still with some difficulty.

January 15th. Temperature 99° F. Patient's recovery was now uninterrupted and in four or five days the inflamed parts had returned to their normal Condition. Patient felt severely shaken but Iron, Quinine & Nux Vomica with a mild astringent mouth Wash aided materially to his recovery. He all patient would be off work for about a fortnight & by that time he returned.

He has remained perfectly well since that time & has had no further trouble from his Tongue. Such is the Clinical History of the Two Cases of Hemiglossitis which I have had an opportunity of watching very closely. As it will be frequently referred to afterwards I have ventured to add, for convenience sake, Dr. Graves's remarkable Case as recorded in his Clinical Lectures Vol II, page 224, New Sydenham Society.

" The patient was W. B. a medical Student. Dr. Graves found him with severe febrile Symptoms of a week's duration, ushered in by Violent rigors, great pain in the neck and occiput: somewhat relieved on the second day by profuse epistaxis. The left half of the tongue became very tender and painful and gradually increased in size. At Dr. Graves' first visit the tongue was enormously swollen and nearly filled the entire cavity of the mouth, which could scarcely be closed on account of the protrusion of the tongue. The right half was perfectly natural and the median line sharply defined the healthy from the inflamed half. Two or three applications of six leeches at a time to the inflamed half, part of which at his

first visit seemed on the verge of gangrene produced a decrease of the Tumour and Inflam= Articulation and deglutition were quickly restored.
He is at present (two years since the attack) able to speak perfectly, although the left half of the Tongue is still perceptibly increased in size".

We may now proceed to the nature of Hemiglossitis from the following points of view, namely as to its Causation, symptoms, side of the tongue involved, course & result, diagnosis, prognosis, complications, treatment and also the nature of the Changes which occur in this affection.

Causes of Hemiglossitis

Predisposing to an attack of Hemiglossitis would seem to be the sex of the individual and the male sex (W. Butlin Diseases of Tongue page 44) would appear more liable to take it than the female. All the cases I have seen have been males and altho' there are a number of cases in the male recorded, the only case of it in the female is in W. Butlin's Book page 45. This is the only case in the female I have found recorded.

Exciting Causes - at the outset we may, in this connection, quote from Dr. Graves Lectures, page 224. Vol II where he observes that "True Idiopathic Hemi Glossitis is very rare" and it is therefore necessary to Enquire to what cause or causes this affection must be ascribed. Sir Dyce Duckworth in his article, Liverpool Med. Chir. Journal, July 1883 page 201, he says "Exposure to cold is the exciting Cause" and with this view I cordially agree as both of my Clinical Cases bear out this statement fully - for Case No I assigned his illness to his having been exposed in an open machine for several hours to a cold wind and that he was not sufficiently well wrapped up. That cold was the Exciting Cause in this case is rendered all the more probable from the fact that the right side of the face was the one Exposed to the cold and was that on which Hemi glossitis & Faucial Angina developed. Again in Case No II Exposure must be assigned as the Cause for the patient worked as a dyer and was necessarily subjected to much variation both in the temperature of, and the degree of moisture present in, the atmosphere. Sir Dyce Duckworth narrates

in Liverpool Journal (page 196) the case of a stationers Warehouseman who suffered from this affection after a bout of beer and spirit drinking - the affection showing itself two or three days after the indulgence. Sir Dyce Duckworth does not actually say that the beer and spirit drinking was the cause but in such a bout we must take into account the fact that such a man would necessarily subject himself to much exposure so long as his drinking bout lasted.

D. Heligan (Graves' Clin. Med. Vol II page ) relates a case where the whole tongue was inflamed - patient was a countryman, 40 years of age, & disease was caused by his working for several days up to the waist in water.

From these facts we must conclude that Exposure, cold and wet are the chief factors in causing Hemiglossitis.

Symptoms of Hemi Glossitis -

Initial Symptoms - in most cases the affection is ushered in by a feeling of general malaise. the patient, inability and disinclination for exertion or in other cases, as in those narrated,

the affection is ushered in by cold shiverings which may pass on to rigors and Dr. Graves' student experienced "violent rigors". Profuse Epistaxis occurred in Clin. Case No. 1 and also in Dr. Graves' Student. Then the temperature rises.
Pain seems to be first complained of in the act of swallowing and is due to the early development of Faucial Angina prior to the onset of Hemi-Glossitis and Sir D. Duckworth Liverpool Journal page 202, says "the frequent precedence of faucial angina is noteworthy in most of these cases and the Hemiglossitis appears to be a later manifestation of the Catarrhal Febrile Process". In both my cases Faucial Angina preceded the onset of Hemi Glossitis by a period of time varying from 2 or 3 days. Sir D. Duckworth page 196 states that the Stationer's Watchmaker, already referred to, attended the Casualty Department for three weeks suffering from sore throat before Hemiglossitis appeared. Besides the pain from faucial angina, patient does complains of pain, often intense, in the Ear of affected side, in the Submaxillary region, Angle of the jaw, muscles of the neck and in occipital region & in affected half of tongue.

Rise of Temperature

In considering the elevation of Temperature in Stenc. Glossitis we must remember the coexistence of Faucial Angina so that both affections have a share in the production of the Pyrexia. In Clinical Case No I when seen 48 hours after onset the evening temperature was 100° F and in case no II the evening was 102·5° F rising next morning to 103° F which was the highest temperature noticed in either case, defervescence slowly but surely following the commencement of Treatment. The fall of temperature was gradual (Lysis) about 1° to 1½° being lost daily until the normal temperature was again reached. This result was attained without the employment of any antifebrile remedies. In W. Butlin's Manual of Diseases of the Tongue no actual Temperatures are recorded, the only remark being to the effect that patient was "feverish". On the other hand it is rendered possible, that, a state approaching to Hyperpyrexia may exist if we take into account Dr. Graves statement as to the case of the Medical Student when he says "that he found his patient with severe febrile Symptoms of a weeks duration".

From these above facts we may be justified

in concluding that the duration of the pyrexia lasts from four to five days in mild cases to seven or eight days in the more severe cases of which Dr. Graves' medical student is a good example.

Examination of the Patient by Inspection

When we are called to see the patient I believe much is to be learnt by W. Chenes method of first thoroughly examining the patient by Inspection and before any questions are put either to the patients themselves or to their friends.

In both of my clinical cases the attitude assumed by the patient was so similar that one description will suffice for both. In each case the patient was lying semi recumbent in bed. face flushed. Especially so over the malar bones, the alae nasi were acting rapidly, and respiration was snoring in Character. The lips and teeth were slightly apart and impinging against and partially passing through between the teeth could be seen the swollen and glistening tongue. During our observation the patient could be seen frequently endeavouring with much difficulty to get rid of stringy and viscid mucus from the mouth & throat and this efforts at expectoration

he aided by means of his handkerchief drawing out as it were the mucus into "strings." When the patient spoke, which he did with considerable uneasiness and difficulty as well as actual pain, the voice was distinctly nasal in tone and of a peculiar muffled character. The breath was very sour and foetid and the teeth corded by sordes. Swallowing, even of the Saliva, could be seen to be painful and difficult. Mastication was out of the question. According to W. Butlin Dyspnoea does not occur in Hemiglossitis and he states "that there is no cause for Dyspnoea in Hemiglossitis" but to this statement I am inclined to take Exception as in both of my Clinical cases Dyspnoea was complained of, although it certainly never proved formidable. The Existence of Dyspnoea, slight in amount, is not to be wondered at when we remember that from the swelling of the inflamed tongue so that the mouth can scarcely be closed, and also by the faucial angina the Entrance of air is to some considerable extent obstructed. In neither case, let it be repeated, did the Dyspnoea approach in any degree to that of urgency. The difficulty of Articulation and of

deglutition are also in part due to the swelling of the inflamed parts, but also to the pain which these acts occasions and to the impaired mobility of the tongue.

Appearance of the tongue itself - on looking at the patient's mouth the tongue can be seen impinging against the Edges of the teeth and part of it may have passed through between the teeth so as to lie between the partially open lips. In other cases as in Dr. Grave's Medical Student "the tongue is enormously swollen and nearly filled the entire cavity of the mouth which could scarcely be closed on account of the protrusion of the Tongue". On patient opening the mouth as widely as possible we see the affected half of the Tongue is enlarged and the whole of the affected half partakes of this enlargement, so that the Tongue fills the greater part of the cavity of the mouth. Its surface is glistening and Oedematous and the dorsum is coated with a dense creamy white fur which extends from near the tip over the dorsum to the root of the tongue. The swelling is distinctly limited to the affected half of the Tongue which is sharply marked off from the healthy portion by the median raphe which now becomes unusually distinct.

In certain cases, as in my Clinical case No I, the swelling seems to concentrate itself towards the anterior portion of the affected half and this when touched is more sensitive than the rest of the inflamed tissue. This swelling is globular or ovoid in shape, semi-elastic to the touch and gives to the fingers the impression of a collection of fluid placed deeply in the substance of the Tongue. Unfortunately the extreme sensitiveness of the Tongue and its swollen condition, to which we may add the difficulty of access in examining the condition of parts - all combine to rendering a thorough examination a matter of great difficulty. Streaks of slimy mucus may be seen here & there over the inflamed surface or passing between it and the neighbouring teeth. There is excessive secretion of Saliva in the affected side. When the swelling is concentrated in the substance of the inflamed half it causes that half to become somewhat arched in appearance. The mucous membrane passing from the edges of the inflamed half to the floor of the mouth is swollen and oedematous and the surface of the inflamed half is indented by the neighbouring teeth. The mobility of the tongue is much impaired & this applies to movement in all directions.

As to the side of the Tongue involved in Hemi Glossitis.
In all the Literature relating to Hemi Glossitis which I have been able to consult the Inflammatory action has been confined to the Left side of the Tongue and I have not been able to find any case recorded where the Hemi Glossitis has been Right-Sided. Sir Dyce Duckworth Liverpool Journal page 201 remarks "that the implication of the left side of the Tongue in all cases hitherto recorded is certainly remarkable". The Clinical Case first described is therefore unique in that the Inflammation affected the Right Half of the Tongue and, in the light of the above facts, must be regarded as the first Case that has been recorded where this has occurred. In all cases previously recorded the left half and it alone has been inflamed from which the right half has been clearly marked off by the median raphé which now becomes more distinct. Mr. Butlin remarks "that in every case the left Half of the Tongue was either affected solely or chiefly, for, when in some of them, the Swelling Extended to the right half, the left remained much more swollen than the right. Diseases of the Tongue Page 43.

Diagnosis - is Easy from the Symptoms and from the Clinical Examination.

Course and result - The usual course of this Affection is well illustrated by Clinical Case No II in which Spontaneous resolution occurred in about a week and the organ returned to its normal condition and no trace of the Inflammation was left. But in some cases superficial ulcers, excoriations or erosions may be left as a result of the Inflamation. W. Butlin "states" that the Disease does not seem to have been complicated by slonghing, ulceration or Suppuration". Disease of Tongue page 44. But that such results are possible & have actually occurred is proved by Clinical Cases which have been recorded. Thus when Dr. Graves saw his Medical Student "the inflamed half of the Tongue was on the verge of Gangrene". Again, Sir Dyce Duckworth, Liverpool Journal page 197, says that suppuration may occur and he further remarks that "the cases in which abscess resulted were unilateral". In this connection case No I forms a good example of Glenic glossitis resulting in Abscess Formation. Again in W. Butlins Book page 45 a case is narrated which was under the Charge of Dr. Moore and in this case

"sloughing" of the surface of the affected side occurred as a result of which "a few excoriations or superficial ulcers" were left.
These foregoing results seem to be mostly temporary in the nature but a more permanent result - that of "Chronic Enlargement" is possible. The only instance of its having occurred is in Dr. Graves' Medical student where "two years after the attack the Tongue was still perceptibly increased in Size".

Prognosis - The prognosis of Hemi Glossitis is, on the whole, favorable and this holds good whether the right or left Half of the Tongue be affected, and in most cases the affection terminates in spontaneous resolution within six or seven days and the inflamed parts return to their normal condition. Good, though the prognosis, undoubtedly is, in most cases, yet we may occasionally met with a case in which the distress is more severe as in Dr. Graves' Medical Student who had "severe febrile symptoms of a week's duration as well as great pain". Dr. Graves' (Clin. Lectures page 226 Vol II) States the prognosis by saying that "the disease would not appear to be attended by danger but to require

require prompt and active treatment". Again the prognosis will necessarily be affected by the presence or absence of Complications or Co-Existent Affections.
Of these, one of the most frequent, is Faucial Angina and it adds much to the distress of the patient. It was present in both of my cases and Sir Dyce Duckworth mentions it as having occurred in several of his cases, one of which had Tonsillitis for 3 weeks before Hemiglossitis appeared. Mr. Butlin makes no mention of its having occurred in any of his cases, nor does S. Grares though we may very strongly suspect its presence both from the difficulty of and pain during Deglutition.
No fatal case has been recorded.
Treatment of Hemiglossitis - may best be considered as the Local Treatment & the Constitutional.
Locally.
Leeching - in case No I four Leeches were applied to the right Sub-maxillary region and the patient being of a sanguine temperament the leeches withdrew a large quantity of blood. After they came off, bleeding was encouraged and continued freely for 16 hours, but notwithstanding this free depletion the patient felt no relief, nor was there any visible decrease in the Size of the inflamed Tongue. Pain

was not in the least relieved. Perhaps had the Leeches been applied directly to the inflamed half, benefit might have resulted, as in Dr. Graves' Medical Student where "two or three applications of six Leeches at a time to the inflamed half, part of which at his first visit seemed on the verge of gangrene, produced a decrease of swelling and inflammation". W. Butlin says "Leeching and Scarification are hardly ever necessary" Diseases of Tongue page 45, and Sir Dyce Duckworth Liverpool Journal page 202 says "if but half the Tongue be involved it is probable that neither Leeches nor Scarification will be called for, but I should condemn the use of neither depletory measure and if there was much submaxillary pain should counsel the application of 3 or 4 Leeches to the submaxillary region and followed by warm poultices". Use to warm poultices - in both of my cases warm linseed poultices were Employed every two hours with much benefit.

Relief of Pain - besides the soothing effect of the poultices Case No I required the Hypodermic use of Morphia (1/6 gr) and Atropiae Sulph (1/120) so severe was the pain. Case No II had severe aural pain which was relieved by dropping occasionally

into the Ear 15 drops of Olei Carbolici (1-40) ʒss + Morph Muriat 2 gts. M. R. - Drops for the Ear as directed.
Frequent washing out of the mouth - both my cases were ordered to wash the mouth frequently with a weak and warm solution of Condy's Fluid. This gave much Ease and helped to correct the Foetor of the Breath.
Use of Gargles - Mr. Butlin recommends their use but the Tonsillitis is so very painful and the tongue so much impaired in its Mobility that their use seems to me to be most unadvisable and consequently I have never recommended their use. But instead, Hot steaming Inhalations, I have found of great value.
Ice. the sucking of Ice is recomended both by Mr. Butlin and Sir Dyce Duckworth but so sensitive is the inflamed Tongue that I have preferred to rely on warmth and moisture.

Constitutionally.
Laxative - in most cases of Hemiglossitis and in both of my cases Constipation Existed and the first medicine given internally should be a smart laxative and, by choice, a saline One. Either a double seidlitz powder or a dose of Henry's solution, in a small quantity of water so as to produce a watery evacuation.

Internally - For internal administration most authorities recommend the use of Chlorate of Potash. I have used it in both of my cases but have combined it with other remedies each to meet a special Symptom - thus for the pain in the Tongue & Throat - Tincture of Belladonna was added: for the Tonsillitis - Tincture of Guaiac was ordered: and for the Prostration and depression - Ether Chlorici with Camphor Mixture. The Prescription ordered was

℞ Potass Chlorat ʒii
Tinct Belladonnae
Tinct Guaiaci Ammoniat ā ā ʒiii
Etheris Chlorici ʒii
Mist Camph ad ℥vi

Det M. Ft mist

Si - ℥ß in water Every 4 hours.

This Prescription has never failed me in cases of Acute Tonsillitis either alone or complicated with Hemiglossitis, and after its use for 36 hours or two days the Throat Symptoms speedily subside and the Tongue Symptoms gradually subside.

Dietary -

In considering what food is suitable for cases of Hemi-Glossitis we must bear in mind the nature of the Disease so that we may order articles which are first of all - most easily swallowed, Easy of

Digestion as well as of Assimilation. Fluids should form almost the entire dietary and considering the extreme sensibility of the affected parts and also of the surfaces over which they have to pass, it is essential to have such fluids bland and unirritating in their nature. It is useful to tell the patient that in the act of swallowing the head should be thrown as far back as possible and that the mouth be opened as widely as the state of the tongue permits, then the Substance to be swallowed is placed as far back as possible on the dorsum of the Tongue and the action of gravity aided by a slight contraction of the Pharyngeal and Oesophageal muscles completes the act of Deglutition. I have found that this method, recently described in one of the Medical Journals, enables the patient to swallow more easily and with much less pain. Most articles of diet should have the chill taken off them before they are presented to the patient. The best articles of diet are milk, Valentine's Extract of Meat, Eggs-flipped up with milk or with some stimulant, such as Brandy, Port Wine or Champagne. Both my cases required stimulants and Sir Dyce Duckworth Liverpool Journal page 202 recommends the administration of Brandy "pro re nata". "

During Convalescence -
The internal remedies best suited are Iron, Quinine and Strychnia as well as more nutritious as well as more stimulating diet, while Locally as the Inflammatory action in the Tongue is subsiding mildly astringent Lotions are useful eg - Alumn (10grs) or Chloride of Zinc (2 grs) to the ounce of Water.

Remarks:-

The nature of Hemi Glossitis -

In considering the nature of this affection it may be remarked, at the outset, that the consensus of opinion is in favour of regarding the disease as a Catarrhal neurosis and Clinical Observers concur in the opinion expressed by Sir Dyce Duckworth when he says that "Hemiglossitis is a catarrhal neurosis much akin to the herpetic Inflammatory Attacks which affect the Throat and other parts." Liverpool Med. Chir. Journal July 1883, page 201. The term catarrhal neurosis which occurs in the above extract indicates the implication of certain nerve or nerves in causing the changes which have been discussed before, and the nerves which are concerned will be referred to in

at a later period.

We have already stated that the Disease is looked upon as an Acute Inflamatory Attack and we may support this statement by such proofs as the following:

1st We regard Hemiglossitis as an Acute Inflammatory Affection because its Causes are Essentially those associated in the production of Inflammation in other organs and parts of the body.

2nd. Because its Symptoms, both the Local Symptoms referable to the Tongue, and the Constitutional Symptoms connected with the body generally, are similar to those occurring in other Inflamatory affections

3rd. Because its results and Complications resemble those which are usually associated with Acute Inflamatory Changes Elsewhere.

First, then, as regards its Causes Hemiglossitis is an Inflammatory Affection. It has been before stated that cold and exposure to damp and wet are the chief causes of Hemiglossitis and it will be readily conceded that to these causes most inflammatory affections owe their origin. How cold and exposure act in producing

Hemiglossitis will be considered when we consider the nerves through which the irritation must pass.

Secondly - Hemi Glossitis in its Symptoms, both Locally and Generally, resembles other Inflammatory Affections. The constitutional disturbances in Hemiglossitis are those met with in other Inflammatory Affections such as the lassitude, inability for exertion, the "rigor" or Chillness whose significance is so Characteristic, then the elevation of temperature which continues while the Inflammatory Action is in progress, and also the Sympathetic disturbances in the other systems of the body - as for instance, in the respiratory system - by the rapid respiration, in the circulatory - by the increased rapidity of the circulation and in the alimentary - by the gastric catarrh and constipation.

Locally - in the Tongue itself we have additional proof of the Inflammatory affection as shown by the swelling of the affected portion, by the severe pain in the tongue itself and also in the Ear, submaxillary region, angle of the jaw, among the muscles of the neck, and in the Occipital region, by the impaired mobility of the organ with regard to all its movements - protrusion, retraction

and elevation.

3rd. In its Results and Complications the Disease shows its alliance to other Inflammations.
Results - the most common result of Acute Inflamation is Spontaneous Resolution and that is what occurs in most cases of Hemi Glossitis but still further, as other Inflamations may end in abscess formation, Gangrene, ulceration and chronic enlargement so may Hemi Glossitis. These latter results though not common in other Acute Inflamatory Affections in other parts are very rare in Hemi Glossitis Thus only one case of Chronic Enlargement is recorded and it is the case of St. Graces Medical Student, one case where Gangrene resulted is Quoted in W. Butlers Manual, abscess formation is also very rare so much so that W. Butler doubts its occurrence but it does occur and still more remarkable that it should happen only when the "inflamation is confined to one side of the Tongue." Sir D. Duckworth Liverpool Med. Chir. Journal July 1883, page 197.
Ulceration may also occur as in other Inflamations.

Again, the Complications existing along with

Henic Glossitis also, are of an Inflammatory nature. We have already referred to the fact that Faucial Angina is most frequently associated with Henic-glossitis and that the Tonsillitis precedes the development of Henic Glossitis which appears to be "a later development of the catarrhal febrile process". There is no doubt of the inflammatory nature of Tonsillitis and Sir Dyce Duckworth regards the morbid process as precisely the same in both of the cases. Yet again the cause of Tonsillitis are Exactly those which have been referred to as operating in the production of Henic Glossitis so that the coexistence of the Affections becomes more Easily understood. It must be remembered, however, that all Cases of Faucial Angina are not necessarily by Henic glossitis so that it would appear to be the Exception and not the rule that Henic glossitis should follow Faucial Angina. Again "in several of the reported cases Herpes has been present on some part of the Face" Sir Dyce Duckworth Lit: Journal page 201 and this is widely recognised as an Inflammatory Affection dependent upon some nervous Change.

Facts, such as the preceding, conclusively prove the nature of Hemiglossitis as Essentially Catarrhal Inflammatory in Character so that I concur in the view expressed by Sir D. Duckworth when he says "Hemiglossitis is a Catarrhal Neurosis" Liverpool Journal page 201. The inflamation is therefore Catarrhal in nature and regarding this Class of Inflamatory Affections W. Hutchinson remarks that "in Catarrhal Inflammations the Exposure to Cold is indirect (and this must be the case in respect of the tongue) and the nutritional Change reflex". Medical Times and Gazette Jan. 6 1883. Seeing then that the affection is nervous in origin it will aid us materially if we systemically tabulate the nervous Supply of the parts concerned namely the Tonsil and the Tongue, as well as to give physiological Facts which have been conclusively proved regarding the functions which such nerves respectively perform.

Our Anatomical Facts are as follows:

Tonsil — Nervous Supply - Branches from Glossopharyngeal and descending palatine branches from Meckel's Ganglion

Nerves supplying

Tongue — anterior 2/3 of mucous membrane supplied by the Lingual branch of the 5th which is joined by the Chorda Tympani from facial.
posterior 1/3 of mucous membrane supplied by Glossopharyngeal.
Muscular tissue by Hypoglossal.

The Physiological Functions performed by these nerves are so concisely stated by Prof. McKendrick that it is desirable for reference to quote them.

I The Lingual nerve contains vasoconstrictor and vaso-dilator fibres. If the nerve be divided after the junction of the Chorda Tympani and irritation be applied, then dilatation of vessels will ensue proving the existence of vaso-dilators - and such fibres come from the Chorda; but if the Lingual nerve be divided before its junction with the Chorda and then irritated - contraction ensues. showing that there are vasoconstrictor fibres in the Lingual itself. Again it was proved by Vulpian that irritation of the peripheral end of the Lingual nerve caused congestion & swelling of the Tongue, but if the Chorda Tympani be divided before its junction with the Lingual nerve and irritation

then applied, no such effect resulted.

II There are vaso-dilator fibres in the Glossopharyngeal nerve as proved by the congestion of vessels of the posterior third of the Tongue, Tonsils &c. when it is irritated.

III Vaso-Constrictor Filaments exist in the Hypo-Glossal Nerve as proved by the dilatation of vessels which follows its division

To these facts I may add

IV That the Chorda Tympani is the nerve presiding over the Secretion of Saliva - and there is salivation, often profuse, in Hemiglossitis showing the Implication, still further, of the Chorda.

With these Anatomical Facts, as well as Physiological, before us we may enquire into what nervous Channel must the irritation be directed so as to result in producing Facial Angina & Hemiglossitis

These Channels are (1) the Chorda Tympani Nerve

(2) the Lingual after it is joined by Chorda

(3) the Glossopharyngeal Nerve.

Now, whilst, irritation applied to any of these nerves will cause in the parts respectively supplied by them dilatation of the blood-vessels with Consequent congestion of the areas supplied We must consider especially which nerve or nerves must be implicated as as to account

for the congestive changes occurring both in the Tongue itself and in the Tonsil. How to account for the Congestive Changes in the anterior two-thirds of the Tongue we must have some irritation applied to the Chorda Tympani as proved by the Physiological Facts previously stated, and from the same facts it is evident that to explain the congestive Changes in the tonsil and pharynx and posterior third of the tongue there must be some irritation applied to the Glossopharyngeal Nerve which gives branches to the parts involved. Some observers such as De Mussey, ascribed the affection to irritation of the Lingual Branch of the Fifth Nerve as the swelling, in their opinion appeared to affect chiefly, if not entirely the anterior two-thirds of the Tongue. Mr. Butlin Diseases of Tongue page 43. But it has been previously shown that if the Lingual Branch of the Fifth Nerve be divided before it is joined by the Chorda Tympani, then although irritation be applied, it fails to produce the Congestive changes which follow when irritation is applied to the Lingual Branch after it has been joined by the Chorda Tympani so that Congestive Changes occurring in the anterior two thirds of the Tongue are due

to irritation affecting the Chorda Tympani nerve.
On the other hand irritative changes must affect the
Glossopharyngeal nerve to cause the congestive changes
in the Tonsil and posterior third of the Tongue.
In considering the causation of Stemi glossitis we may
at once dispose of the Hypo Glossal nerve in this
connection as it contains only Vaso constrictor
filaments as proved by the Fact that the
blood vessels dilate when it is divided.
The nerves to which we have limited ourselves
in accounting for the production of Stemi -
Glossitis are, therefore, the Chorda Tympani
and the Glossopharyngeal. Now, we have
previously, stated and shown that exposure to
cold and atmospheric influences are the cause
of Stemi Glossitis and it now becomes Essential
to Enquire as to what is the Channel by
which this irritation reaches the nerves so
as to produce this affection. Let us briefly
look, for this purpose, at the anatomical
distribution of these nerves.
1st The Distribution of the Chorda Tympani -
"The Chorda tympani is given off from the facial as it
passes vertically downwards at the back of the Tympanum
about ¼ of an inch before its exit from the Stylomastoid

foramen. It ascends from below upwards in a distinct canal, parallel with the aqueductus Fallopii, and enters the cavity of the Tympanum through an opening between the base of the pyramid and the attachment of the membrana Tympani, and becomes invested with mucous membrane. It passes forward through the cavity of the Tympanum, between the handle of the malleus & vertical ramus of the incus, to its anterior inferior angle & emerges from the Tympanum by the canal of Huguier" Grays Anatomy page 507.

2nd. Distribution of Glossopharyngeal -

For our purpose the distribution of the following branches are sufficient -

The Tympanic branch (Jacobsons Nerve) arises from the petrous ganglion and enters a small bony canal in the lower surface of the petrous temporal bone - it ascends to the Tympanum, & enters that cavity close to its inner wall, and divides into three branches which are contained in grooves upon the surface of the Promontory.

Its branches of Distribution are, one to the Fenestra rotunda, one to the fenestra ovalis and one to the Lining membrane of the Eustachian Tube & Tympanum.

It communicates, also, with the Facial.

Tonsillar branches supply the Tonsils and soft palate

and Lingual Branches supply the Posterior third of the Tongue". Gray's Anatomy, Page 522.

From the above distribution of the nerves concerned in the Inflammatory Affection we can easily see the point at which the nerves are most exposed to the action of Exposure and in both of the nerves we find that branches of the nerves are contained within the Middle Ear or Tympanum. Thus the Chorda Tympani passes through that Cavity and it is only protected from the External Air by the Membrana Tympani itself and by a covering of the mucous lining of the Tympanum. Again the Glosso pharyngeal nerve supplies the mucous membrane which lines the Tympanum and like the Chorda has only the Membrana Tympani to protect from atmospheric influences. From the Anatomical and Physiological Facts which have been previously stated I have come to the conclusion that the atmospheric influences, such as exposure to cold and wet, must act on the Chorda Tympani and on the Glossopharyngeal Nerves through the Channel of the External Auditory Meatus. as through it Exposure can so easily

nerves whose irritation is necessary for the production of congestion in the areas they supply.

That the exposure does act through the External Auditory Meatus gains additional proof from the following Clinical Observations

1st That on the affected side, both of my patients complained, one of them very severely, of pain in the Ear corresponding. This shews that the Chorda Tympani and the Glossopharyngeal in the Tympanum must have been affected by the exposure for a careful examination of the membrana Tympani showed no inflamatory action affecting the membrane itself, nor was there any inflamation of the Middle Ear. Still further, there was no deafness nor any discharge. - thus shewing the absence of any affection of the middle Ear. The hearing power was carefully tested by the Tuning fork, by the watch and by Politzer's Hörmesser and no defect could be made out. Again in the affected side the pains complained of at the angle of the jaw, submaxillary region along the muscles of the neck and occiput may be due in part to pressure of the inflamatory Exudation, and also to Sympathetic affection.

2nd. In clinical cases No I we may remember that the Right side, on which the Affection, occurred, was the one subjected to Exposure for several hours and that the cold wind which patient felt was favorable to the development of this inflammatory action.

3rd. That the Chorda Tympani and Glossopharyngeal Nerves may be primarily affected by Exposure is readily understood when we consider the positions occupied by them in the middle Ear for they have no bony covering and their only protection from atmospheric influence is the Membrana Tympani and also the Mucous membrane lining the Tympanum. They are therefore so situated that Exposure readily acts on them.

In considering the Inflammatory nature of Hemi-Glossitis for which reasons have been given referring to its inflamatory causes, symptoms, complications and results we have now seen the part which, I believe, the nerves implicated play in producing the disease.

and Sir Dyce Duckworth remarks "That the irritation (i.e from Exposure) reaches, in a reflex manner, after the fashion of an ordinary catarrh either the lingual nerve with the Chorda tympani branch or glossopharyngeal, implicating their vasodilator fibres, leading to congestion of the parts supplied by each. If the catarrhal stroke fall on both nerves, the attack may be conceivably intensified. Liverpool Med. Chir. Journal page 201.

Dr. Lauder Brunton has advanced the view which I have already given and which I consider the most worthy of adoption for the reasons already stated - & it is "that the irritation may sometimes fall primarily on the Chorda tympani branch ("and I believe the Glossopharyngeal) by the Channel of the Ear of the affected side" Liverpool Journal page 201.

Why the Left side of the Tongue has been the seat of Hemiglossitis does not seem at all clear and the Clinical Case where the Right Side was involved was caused by the Exposure of that side of the face & neck to the cold wind. In this connection it may be noted that Sir Dyce Duckworth quotes M. A. Deckambre who

remarks that "Neuralgia of the Tongue is chiefly met on the left side". Liverpool Journal page 201 in foot note. But while Hemi glossitis occurs more frequently in males, Neuralgia of the tongue is more frequent in Females. Mr. Butlin Diseases of Tongue page 418. I myself have seen only one case of Lingual Neuralgia & it bears out the above statements for it occurred on the left side in a woman. There would thus seem to be, from the above facts, a predilection for the left side of the Tongue becoming involved in nervous affections, but, why this should be so, we have no reasons at present which will Explain this peculiarity. It may be remarked that the concomitant Sialorrhea seemed also to fall more severely on that side on which the tongue was inflamed.

Again the fact that the Faucial Angina is first developed and in a period varying from two or three days to three weeks as in one of Sir Dyce Duckworths' cases before the Hemi glossitis shows itself is a point certainly highly remarkable and at the same time difficult to Explain. This of

cause implies that the Glossopharyngeal nerve is the first to suffer from the irritative changes and the "catarrhal febrile process" extends later and involves the Chorda Tympani when Stomi-Glossitis develops.

Its more frequent occurrence amongst the male sex may be readily explained by the fact that males are necessarily much more subjected to exposure under all kinds of weather than are females. Otherwise there seems to be no special reason why males should be more liable to the disease than females are but Sir Dyce Duckworth seems to accept "the present teaching of the Parisian School" when he says that "Persons of the Arthritic diathesis seem to be more than others prone to suffer from catarrhal manifestations of this character & a hæmostatic tendency is often associated as part of the process" Liverpool Journal page 198.

I cannot say that either of my cases exhibited any signs whatever of the arthritic diathesis but I looked upon the disease as one, in their cases at

least, as of an entirely local origin, and having for its cause one also local in the form of exposure. No doubt where debilitating influences are at work the patient becomes more susceptible to the onset of a catarrhal Neuris such as Hemi Glossitis - as in Sir Dyce Duckworth's case where a drinking bout had gone on for three weeks accompanied by sore throat, before the Tongue affection developed.

It is only by the accurate observation and recording of the cases of Hemi Glossitis that further knowledge of the disease in all its bearings can be elucidated and it is with this in view that I have noted, so far as one can, in private practice, the particulars of the Clinical cases which have come under my notice and I am glad to be able to record a case where, apparently for the first time, the right side of the Tongue has been involved, and I trust, that the Clinical cases and more especially the First will prove an addition of some value to Medical Literature.