Surgical reports : read before the Surgical Society of Ireland / by Henry Gray Croly.

SURGICAL REPORTS.

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PART I.

ACUTE INFLAMMATION OF THE TONGUE,
ILLUSTRATED BY NUMEROUS CASES
SUCCESSFULLY TREATED.

PART II.

SCALDS OF THE WINDPIPE
FROM ATTEMPTS TO SWALLOW BOILING WATER,
SUCCESSFULLY TREATED.

READ BEFORE THE SURGICAL SOCIETY OF IRELAND.

BY

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THE following pages contain REPORTS of important Surgical Cases, with Observations, read before the SURGICAL SOCIETY OF IRELAND, now reprinted and dedicated to the Students attending the practice of the CITY OF DUBLIN HOSPITAL, and the SCHOOL OF MEDICINE OF THE ROYAL COLLEGE OF SURGEONS.

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SURGICAL REPORTS.

Part I.

OBSERVATIONS ON ACUTE GLOSSITIS, ILLUSTRATED BY CASES.

One of the first urgent cases which I was called upon to treat in my practice, was acute inflammation of the tongue. I had not an opportunity of seeing the disease during my pupilage, though in constant hospital attendance as Clinical clerk, Dresser and Purser-Student. Subsequently, however, whilst House-Surgeon to the City of Dublin Hospital, I observed and noted several cases of this affection, and since then I have had *ten* patients suffering from this disease under my own care. I am desirous of bringing those cases under the notice of the Society, as illustrative of Glossitis and its treatment, with extracts from Medical and Surgical writers to further elucidate the subject, concluding with practical observations on the causes and treatment of this important disease.

Case 1.—ACUTE IDIOPATHIC GLOSSITIS, ENDING IN SUPPURATION, AND FOLLOWED BY ABSCESS AT THE BACK OF THE PHARYNX: RECOVERY.

J. M., aged 19 years, a farm-labourer, of temperate habits and robust frame, bathed in the sea at Bray on the 17th of August, 1856; did not dry himself sufficiently; got a wetting on his way home; the following day he went to work as usual; reaped corn and worked very hard; on his return home in the evening he was attacked with severe shivering, felt soreness in his throat, and had slight difficulty of swallowing; he tried to work on the next day, but failed; felt his tongue swollen. I was requested to visit him on the 20th instant, by his father, who stated that his son had "lumps in his throat," and was choking. On arriving at his house I found

him sitting up at the fire, with an anxious and flushed countenance; saliva dribbling from his mouth; speech thick and indistinct; tongue swollen and tender to the touch; mucous membrane covering the sublingual space infiltrated, and raised on a level with the top of the teeth; considerable hardness under the chin; pulse 120, and full; patient had not slept since the commencement of the attack. I immediately punctured with a sharp-pointed bistoury the sublingual space, which was followed by a free discharge of blood and serum; prescribed a mixture containing tartar emetic in nauseating doses, administered a brisk purgative, and ordered half-a-dozen leeches to be applied under the chin. I recommended incisions into the tongue, which were objected to.

August 21st.—Tongue swollen and marked by the teeth. It was now evident that matter had formed in the cellular space underneath the tongue, and after considerable persuasion, I was permitted to make an incision under the chin, which I accordingly did, passing the scalpel well up in the *median line*, which gave exit to a large quantity of blood and pus.

22nd.—Pus flowing freely through the openings at each side of the frænum linguæ, where I made the punctures, and on pressing the tongue on the dorsum pus escaped in large quantity through the incision beneath the chin. The treatment now consisted in the application of linseed poultices, quinine mixture, and beef-tea. In four days the patient complained of soreness in his throat and difficulty of swallowing. On examination I observed a large abscess at the back of the pharynx, which I opened with a bistoury, guarded with lint nearly to the point. Some very fœtid pus was thus evacuated, to the immediate relief of the patient, who steadily improved, and was very soon in the enjoyment of his usual health.

CASE 2.—ACUTE IDIOPATHIC GLOSSITIS, INVOLVING THE LEFT HALF OF THE ORGAN ONLY, ENDING IN RESOLUTION.

J. K., aged 38 years, of temperate habits, but an inveterate smoker, by occupation a Warder in the Spike-Island Government Convict Prison, of which I had charge; had not been exposed to wet or cold lately; could not assign any

reason for the attack. This man presented himself at the prescribing-room attached to the hospital on the morning of the 20th of November, 1860, complaining of sore throat, accompanied with pain and difficulty in swallowing; he was much disturbed during the night, slept badly, and started up frightened by unpleasant dreams; his speech was thicker than usual, and his expression presented much anxiety. I made a careful examination of his throat, but found the tonsils, uvula, and palatine arches free from even slight efflorescence; he winced when I made pressure with my finger on the *base* of his tongue, particularly when I pressed on the *left* side of the raphe. I ordered the man to be admitted at once into the hospital and prescribed a purgative.

November 21st.—Patient has not slept; his bowels were freely acted on by the medicine; there is a slight swelling of the left side of the tongue *near its base;* skin hot and dry. A diaphoretic mixture prescribed.

22nd.—Patient's speech is very *thick;* he had a bad night; he says he has *acute pain* in his tongue far back at the left side; countenance not very anxious; he coughs occasionally, and then discharges from his mouth a quantity of viscid ropy mucus; there is a slight swelling under the angle of the left jaw, not so far back as the tonsil, which is very tender to the touch; the tongue is now considerably elevated towards the roof of the mouth at *the left side*, the right side seems natural; the edges of the organ are red, and the centre covered with a white exudation; the left side of the *apex* has a thick rounded appearance, and contrasts remarkably with the opposite part; the sublingual space is slightly elevated, and the crest running up towards the under surface of the apex of the tongue is visible, but not very distinctly; the patient says he had several severe shivering fits during the night; the saliva dribbles constantly from his mouth. The tongue having been well dried, I applied six leeches on its anterior and left side (a thread was previously passed through the end of each leech), they filled rapidly and fell off; the bleeding was encouraged by warm water.

23rd.—Tongue much less swollen, but still considerably enlarged; the tenderness and swelling remain under the left angle of the jaw; three leeches were applied to the painful part; and a soft poultice of linseed-meal when the leeches fell off.

24th.—Patient slept well; countenance natural; he was discharged cured in a few days.

Case 3.—ACUTE IDIOPATHIC GLOSSITIS ENGAGING THE ENTIRE TONGUE, TERMINATING IN RESOLUTION, IN A BOY THIRTEEN YEARS OLD.

(Reported by the Purser-Student.)

A. L., a delicate-looking boy, aged 13 years, was admitted into the Children's Ward of the City of Dublin Hospital, on the 12th of November, 1864, under Mr. Croly's care, suffering from inflammation of the tongue. His mother could not assign any reason for the attack. On admission his countenance was anxious; his tongue much enlarged and protruded from the mouth; his respiration was difficult and he could scarcely swallow. Mr. Croly made a free incision with a sharp-pointed bistoury at each side of the raphe, from which blood and serum flowed profusely. The wounds gaped widely, and as the hæmorrhage continued very smartly, they were plugged with lint; the plugs were removed in a few hours; there was no further bleeding; the little patient was greatly relieved by the prompt treatment.

November 13th.—Wounds looked like mere scratches; the boy slept well; took wine and beef-tea; his tongue was entirely *in* his mouth.

14th.—The incisions gaped a little; patient much improved in strength.

18th.—Tongue quite natural; discharged cured.

Case 4.—ACUTE IDIOPATHIC GLOSSITIS AFFECTING THE LEFT HALF OF THE TONGUE, TERMINATING IN RESOLUTION.

(Reported by the Purser-Student.)

J. C., aged 30 years, cab-driver, was admitted into the City of Dublin Hospital, September 5th, 1865, under the care of Mr. Croly, suffering from inflammation of the tongue.

Previous History.—Has always been healthy and temperate, was not exposed to wet or cold before the present attack; never took mercury. About a fortnight before admission to hospital he felt a stinging pain under his left eye; three days subsequently he noticed a swelling under his left jaw-bone

(near the angle); he slept badly; his tongue became swollen and painful at the left side; the swelling increased rapidly in one night, and prevented him taking any breakfast on the following morning.

State on admission to hospital.—Left half of tongue very much swollen, protruded from mouth, and marked on left side by the teeth; anterior surface of the organ covered with white tenacious mucus; left submaxillary gland considerably enlarged, very hard and extremely painful to the touch; saliva flowed freely from the mouth; deglutition, articulation, and respiration impaired; pulse full and frequent; fœtid breath; teeth loose at left side. Mr. Croly ordered four leeches to be applied to the inflamed submaxillary gland; hot poultices were kept constantly on, and a gargle of alum and chlorate of potash was prescribed to be used frequently; a purgative was also administered. The leeches bled copiously, and required matico leaves to arrest the hæmorrhage. The tongue regained its normal appearance, and the patient in a few days was discharged cured.

Case 5.—ACUTE IDIOPATHIC GLOSSITIS INVOLVING THE ENTIRE ORGAN, BUT MORE MARKED AT THE RIGHT SIDE, ENDING IN RESOLUTION.

(Reported by the Purser-Student.)

Christopher Pallas, aged 15 years, a strong healthy-looking boy, by occupation a messenger, was admitted into the City of Dublin Hospital on Thursday, September 7th, 1865, under the care of Mr. Croly, suffering from inflammation of the tongue.

This boy said he caught cold by sleeping out all night on a car (about a week before his admission to hospital); on the morning following he felt his throat very sore; four days subsequently he suffered from severe pain in both ears (worse in the right ear than left); his tongue became painful and swollen, and he swallowed with difficulty; on admission his tongue filled the cavity of the mouth completely; it projected slightly, and was covered with a white fur. The right half was more enlarged than the left; fœtid saliva dribbled from the mouth; submaxillary gland hard and painful to the touch; the patient swallowed with difficulty; articulation imperfect; speech thick.

Mr. Croly made two parallel incisions in the tongue, one at either side of the raphe. A large quantity of blood, pus, and serum escaped. The patient was directed to wash his mouth with tepid water; all hæmorrhage ceased very soon; a purgative was administered, and an antimonial mixture to subdue the inflammatory symptoms.

The patient was discharged cured in a few days.

Case 6.—Acute Idiopathic Glossitis, followed by Abscess under the Angle of the Jaw.

M. B., a servant maid, was admitted under my care in the City of Dublin Hospital on the 1st of May, 1865, suffering from acute inflammation of the tongue and sublingual glands. She was recommended to me by Dr. Chapman, Medical Officer to the Donnybrook Dispensary District.

History.—She caught cold from wet feet; had shivering fits; felt soreness *under* her tongue; her voice soon became affected, and the tongue swollen.

The catamenia were irregular of late, and she stated that at the period when she ought to have menstruated her tongue swelled; deglutition caused much annoyance, and she became hot and sick. On admission her tongue was observed to be swollen, and her expression was indicative of the disease; but the mucous covering of the *sublingual region seemed to be more affected than the substance of the tongue itself;* her voice was indistinct and speech *thick;* she could not bear pressure on the tongue or under the chin.

I made punctures with a sharp-pointed bistoury at each side of the frænum linguæ, and also incised the tongue at each side of the raphe; the hæmorrhage was free, and the patient felt instantaneous relief; a purgative was prescribed, and hot poultices beneath the chin. She remained three weeks in hospital, and was then discharged well. The tongue was restored to its natural size. After her discharge from hospital she got inflammation under the left angle of the jaw; five leeches were applied; an abscess formed subsequently in that region, and was opened by Dr. Chapman.

Case 7.—Inflammation of the Tongue from Erysipelas, ending in Resolution.

H. S., aged 68 years, was admitted into the City of

Dublin Hospital on the 3rd of November, 1866, with a large Epulis involving almost the entire right half of the lower jaw. On the 6th of November I removed the half of the maxilla from the articulation. On the 13th instant the patient was attacked with a mild form of Erysipelas of the face. On the 15th instant he complained of his tongue being sore; the organ swelled rapidly, and at my night visit was enormously enlarged and protruded through the wound; dyspnœa was urgent, and swallowing very difficult. I made free incisions on the anterior surface of the tongue, at the right side of the raphe (the left side was not much infiltrated and did not require incisions). The relief was almost immediate.

CASE 8.—IDIOPATHIC GLOSSITIS (OF THE ENTIRE ORGAN).

About eight o'clock on the night of the 23rd of January, I received a letter from Mr. David Hadden (one of the Resident Pupils in the hospital), requesting me to visit, as quickly as possible, a girl just admitted, who was suffering from urgent dyspnœa and symptoms of Glossitis.

On arriving at the hospital I found a girl sitting up in bed, suffering from alarming dyspnœa. Her tongue filled the entire cavity of her mouth, and its convexity almost touched the palate. Saliva poured copiously from her mouth: her head was thrown back; her countenance was anxious, and she breathed entirely through the nostrils; pulse 120 in the minute. She could not speak. I ascertained, on examination, that the region of the tonsil of each side was free from swelling, and not tender on pressure. The submaxillary region, however, was enlarged, and very sensitive to the touch. The girl could not bear any pressure on the apex of her tongue, which protruded between the teeth, and was covered with a white exudation. The breath was fœtid. There was no tenderness of the gums, and the patient had not taken mercury or any other medicine lately. The girl's mother stated she was in good health until the 17th of January, when she caught cold by taking off her boots and walking in the snow. She complained of *shiverings, headache, thirst, and soreness of her tongue.* She was menstruating at the time, and the discharge was checked.

It was to me quite evident that she was suffering from acute Glossitis of an unusually severe form, and from the aggravated

symptoms I felt most anxious about her. I lost no time in introducing a sharp-pointed curved bistoury into the mouth, keeping its blade flat towards the tongue until its point reached the base of the organ, and then, having turned the edge of the knife towards the tongue, made a rapid, deep longitudinal incision between the raphe and edge, and parallel to the septum. I quickly changed the bistoury to the other side, and made a similar free incision. The hæmorrhage was copious.

The relief to the breathing was almost immediate. I directed three leeches to be applied to each submaxillary region, and a hot poultice put on when the leeches came off. The patient tried to swallow some milk, but could not succeed. She took ice in small pieces, and enjoyed it very much. A turpentine enema was administered, as the bowels had not acted since the commencement of the attack.

24th.—Mr. Hadden's note says: "Patient had a restless night; she swallowed a little wine-and-water with difficulty, and continued the ice; bowels were freely moved; countenance less distressed, and the breathing not so difficult."

Six P.M.—On visiting the patient I found her symptoms not as much relieved as I had anticipated, and as the tongue was still very much inflamed, I made incisions again into the organ in the same situation as previously. A large quantity of blood escaped, and as she could not swallow, I ordered nutritive injections of beef-tea and whisky to be administered every third hour.

Eleven P.M.—Breathing much less difficult; the girl could speak a little; her voice, heard for the first time since admission, was peculiar, and the speech "thick," and indicative of the disease; pulse 112, and stronger.

25th.—Patient slept tolerably well last night; she can swallow a little, and still enjoys the ice; nutritive injections continued.

26th.—Pulse 100; saliva still flowing freely from the mouth.

27th.—Tongue still much enlarged, and protrudes beyond the teeth; the patient cannot swallow enough of nourishment to keep up her strength. Ordered nutritive injections every hour.

28th.—Pulse stronger; patient swallows a little iced milk; white exudation is separating from the tongue.

29th.—The incisions, so far as they can be seen, are mere lines; the edges of the tongue are deeply marked by the teeth; the *hardness and enlargement consequent on the effusion of lymph still remain.*

I consider that this was a typical case of Glossitis; and feel certain that if the tongue had not been freely and deeply incised, the trachea should have been opened to save the girl's life. The tongue swelled so much, that the upper teeth were embedded in it, leaving holes one quarter of an inch deep.

Case 9.—On the 1st of May, 1867, I was requested to visit Mr. D., in consultation with Dr. M'Cormick.

The patient, who is over 70 years of age, and always enjoyed good health, complained on Easter Monday of a soreness about his tongue—three days subsequently, Dr. M'Cormick visited him, and found him suffering from all the ordinary symptoms of acute Glossitis of the *left half* of his tongue. Saliva dribbled from his mouth, his speech was thick, he had dyspnœa and dysphagia. The left submaxillary gland was tender to the touch. Leeches were applied to the left submaxillary region, and a purgative administered. At my visit, I found the patient partly sitting up in bed and unable to articulate. I made pressure on the tonsils, and found them free from enlargement or tenderness. The *left half* of the tongue protruded between the teeth, and almost completely filled the cavity of the mouth on the affected side; the right half was natural. I ascertained that the inflammation had gone on gradually for nine days, the patient slept badly for some nights. I suggested that a free incision should be made at once into the inflamed organ, which the patient consented to, and having him placed in an arm-chair, I introduced a sharp-pointed curved bistoury flat into the mouth and well back to the base of the tongue, and having turned its edge towards the dorsum, made a *deep* and *long incision parallel* with the raphe and mid-way between it and the edge of the tongue; blood and serum escaped freely, and I found it necessary, in consequence of the patient's age and debilitated state from want of sleep and food, to plug the incision with lint; pressure was made with the finger on the lint, and thus the hæmorrhage was controlled. The patient was put into bed, and drank some port-wine negus. He expressed himself as relieved at once by the

incision. He was ordered beef-tea, and eggs beaten up with brandy.

May 2nd.—Patient says he slept well. The tongue has diminished in size, and shows the deep impressions of the teeth at the left side. As the submaxillary gland remained tender, I suspected that an abscess had formed in its substance, and having made slight pressure on it, some healthy pus escaped through the incision in the tongue.

A chlorate of potash gargle was prescribed, and also a bark mixture.

The patient made an excellent recovery, and the wound in the tongue healed with the usual rapidity, but the speech remained thick for some days, and the *hardness* consequent on the *infiltration of lymph* into the muscular substance of the tongue gradually diminished.

I had a photograph taken of the patient before the tongue regained its natural size, and exhibited it to the members of the Surgical Society.

Case 10.—Patrick Toole, aged 33 years, a labourer, was in good health until Monday, July the 8th, 1867, when he felt a soreness about the root of his tongue; he continued at work until the 11th inst., he then felt a difficulty in swallowing; his tongue swelled at the *right side*, and was painful; saliva dribbled from his mouth; he had not been taking any medicine; I was requested to visit him on the 12th of July, and found him suffering from the following symptoms:—

Voice peculiar and *speech thick; right half* of the tongue inflamed, and elevated, and *rounded* at the tip, sublingual glands infiltrated and raised on a level with the top of the incisor teeth; anterior surface of the tongue covered with an adhesive white exudation; slight dyspnœa, and some dysphagia; pulse 90 and full.

Treatment.—Numerous punctures were made with a bistoury into the infiltrated sublingual space, which bled freely, and discharged a large quantity of serum. The tongue was well dried, and four leeches were applied on the dorsum at the right side; they bled very freely, and the bleeding was encouraged by washing the mouth with warm water; two purgative pills were prescribed, and an antimonial mixture. The inflammation gradually subsided, but the *hardness*, consequent on the effusion of lymph, remained for several days.

IDIOPATHIC GLOSSITIS.

I am indebted for the notes of this and the two following cases of idiopathic Glossitis to my friend Dr. Hadden, of Clonakilty, county of Cork, in whose practice they occurred :—

John M'C., aged 25, a small farmer, got a severe wetting; there were smart feverish symptoms four days afterwards, ushered in by a rigor, and within forty-eight hours the tongue was swollen and painful; deglutition difficult, and his speech thick. "When I first saw him (writes Dr. Hadden) the inflammation was chiefly confined to the root of the tongue, and extended to within about an inch of the tip; from my experience of a traumatic case some weeks before, I delayed the incisions usually made in such cases, and gave a mixture containing sulphate of magnesia and tartar emetic, every third hour. On the second day after, I called, and found my patient so much better that he got up, and had gone to some old woman, who lived nearly a mile off, to have the cure completed. Within a week he called at my own house, when only a small spot of hardness remained, which was quite painless, and gave him little or no annoyance."

"A dairyman, aged 45, had been also exposed to severe cold, and was obliged to remain in his wet clothes all night. I saw him on the third day, having been hurried off by a message to say that he was choking. When I reached him his symptoms were little short of suffocation ; the tongue was immensely swollen, and protruded between the teeth ; there was profuse salivation; the countenance livid and tumid ; his pulse 120, hard and bounding. In this case there was no time for delay, so I immediately made two long incisions into each side of the swollen organ, from base to tip; they gaped widely, and gave exit to a smart hæmorrhage, but in less than half-an-hour my patient was able to lie back comfortably. I gave him, also, the sulphate of magnesia and tartar emetic mixture, and in a few days he was quite convalescent."

"A child, 6 years old, the daughter of a coast-guard. Some six or seven weeks previously, she had a mild attack of gastric or remittent fever, from which she had recovered well, when she was exposed to cold on a stormy day—the station being in a very exposed position. For the first week I did not see her, but was told by her father that she

swallowed very badly; that he noticed her speaking indistinctly, and saliva running from her mouth. On the eighth day I saw her, when, finding very distinct evidence of fluctuation, I made an incision into the tongue, at the left side of the raphe, when a large quantity of healthy pus exuded. I ordered a permanganate of potash gargle, and from that hour my little patient made a rapid recovery."

The Irish School in this, as in other important Medical and Surgical diseases, has been foremost in adding to our practical information. Our great clinical teacher Graves, and subsequently Professor Geoghegan, have written ably on the subject.

Graves, in his "Clinical Lectures," says: "True idiopathic Glossitis is an extremely rare disease. Frank only saw one case of it during his whole life. Four cases of it have been observed of late in different parts of Europe, one of which is given in a German journal, on the authority of my friend Dr. Gottel of Elbing, a gentleman upon whose accuracy implicit confidence may be placed. In none of those cases, however, was the inflammation limited to one-half of the tongue. Dr. Neligan informs me that he had a case of idiopathic Glossitis under his care in Jervis-street Hospital, in the year 1846; it occurred in a stout country-man, aged 40, and was caused by his working for some days up to his waist in water. The affection came on with rigors; the entire organ was engaged and so enormously swollen as to prevent the patient from articulating, swallowing, or closing his mouth. Deep incisions were made *transversely* into the substance of the organ, which were allowed to bleed freely, and he was put rapidly under the influence of mercury."

In THE MEDICAL PRESS for 1860, Professor Geoghegan published a series of interesting cases of acute idiopathic Glossitis which were under his care in the City of Dublin Hospital.

Case 1.—Acute Glossitis terminating in sublingual abscess, and followed by relapse.

Case 2.—Subacute Glossitis, terminating in resolution.

Case 3.—Acute Glossitis, followed by sublingual abscess.

Case 4.—Acute Glossitis; abscess in the muscular substance of the tongue.

Case 5.—Acute Glossitis; abscess in the cellular capsule of the sublingual gland.

Case 6.—Acute Glossitis; abscess in soft parts beneath the tongue, followed by one in the muscular structure of the organ.

It is remarkable that the majority of those cases terminated in abscess, and only one in resolution.

Dr. Geoghegan says: "Acute inflammation of the tongue is generally reported to be a very uncommon affection. Personal experience leads me to doubt the accuracy of such statement, and to surmise that the paucity of *recorded* cases has been confounded with rarity of the disease."

I find that Dr. Wharton, in THE MEDICAL PRESS (August, 1860), recommends punctures with a lancet beneath the tongue as likely to lessen the tendency to suppuration.

In my Case No. 1, which occurred in 1856, I adopted the practice thus advised by my friend Dr. Wharton, with some relief, but not so effectually as to prevent the formation of matter.

Sir Wm. Fergusson, in the last edition of his admirable work on "Practical Surgery" (page 587), published in 1857, says:—

"I have seen several instances of remarkable swelling about the tongue which I could not account for from any previous experience. In one of these there was considerable swelling of the organ, copious flow of saliva, difficulty of speech, and remarkable difficulty and pain in deglutition. These features, and considerable œdema about the mucous membrane under the tongue, led me to suspect abscess about the back part of the organ, but a close examination failed to detect the presence of matter. During increased suffering the patient suddenly became aware of the presence of additional fluid in the mouth, and soon perceived a quantity of matter which he supposed had come from about the root of the tongue. There was speedy relief, and the result was all that could be desired. Some time after I saw a case very like this one, and anticipated a similar end; but the patient, a strong middle-aged man, died from exhaustion, without any discharge of matter. In both of these instances the palate, uvula, and tonsils were

not involved, so that there was no appearance of ordinary cynanche. In August, 1856, I had to travel some distance to see a gentleman who had been unable to speak or swallow for some days. The pain at the root of his tongue was sufficient to deter him from making any efforts of the kind. On a careful examination I fancied there was a swelling and some fluctuation at the back part of the tongue, near the epiglottis, and, under the impression that matter was there, I made a puncture with a slightly curved lancet, and let out a considerable quantity of fœtid pus. The relief was so rapid that the patient could swallow and speak audibly in a few minutes after. Such cases are, in my experience, very rare."

It appears to me remarkable that a surgeon of such undisputed eminence as Sir Wm. Fergusson should not have been familiar with Glossitis before the year 1857, when he published the last edition of his work on Surgery.

The cases recorded by that gentleman, though not named or classified as Glossitis, were evidently of that nature. The first of his cases ended by the abscess opening into the mouth; in the second, death occurred without Surgical operation; in the third case Sir Wm. Fergusson relieved the patient by incision into the abscess situated at the back part of the tongue near the epiglottis.

Rapid *œdema* of the tongue, extending to the larynx, occasionally follows the operation of ligaturing a portion of the organ for the purpose of removing a cancerous growth, and may require bronchotomy.

Prolapsus linguæ, described by Lassus, is considered to be a congenital affection. Mr. Syme gives the history of three such cases in his "Observations on Clinical Surgery," and cured some of them by pressure of bandage and a lotion.

Chelius (by South) speaks of enlargement of the tongue as a congenital disease; he says "this affection must be distinguished from that protrusion which depends on inflammatory swelling," yet he does not give any account of acute Glossitis.

My father witnessed a very curious occurrence a couple of years ago in the neighbourhood of Rathfarnham, illustrating the rapidity with which *engorgement* of the tongue may take place. A donkey got his tongue through the ring of the snaffle bridle; the driver remarked the uneasiness of the

animal, and on examining him found his tongue enormously distended with the ring of the bit embedded deeply in his tongue. My father informed me that the affection resembled very much a well-marked case of paraphymosis; under his direction the blacksmith filed across the ring, when the tongue almost immediately resumed its natural appearance.

The following are the *causes* of Glossitis mentioned by authors :—

1. Exposure to wet and cold (the idiopathic form).
2. Mercurial salivation.
3. Erysipelas spreading through the mouth.
4. Variola, or other eruptive diseases.
5. Stings of wasps or other venomous insects (in fruit season).
6. Wounds of the tongue, such as bites during mastication, or epileptic paroxysms.
7. Burns and scalds.
8. Incautious or accidental mastication of acrid or irritating substances, as poisonous plants. (Copeland saw a case of diffuse asthenic Glossitis caused by masticating monkshood, through accident.)
9. The excessive use of tobacco.
10. Caustics, acid and acrid chemical compounds.
11. Operations on the teeth, or for ranula.
12. The administration of mustard has produced it when given in cases of poisoning.
13. Suppression of the menses, or other accustomed discharges.

I may here mention that the *idiopathic is the most frequent variety of the disease, though generally considered to be very rare.* The majority of my cases were purely of that type, and all of Dr. Geoghegan's were of the same nature. Young and healthy men are most prone to this form of the affection, and the inflammation is most frequently *sthenic* in its character. When produced by excessive mercurial action, or suppression of the salivary flux, there is generally much *more tumefaction* than actual inflammation of the organ.

When Glossitis occurs as a complication of erysipelas, small-pox, scarlatina, or pestilential maladies, the inflammation is of the *asthenic* type; the symptoms are urgent, and the progress of the disease is rapid; pain and tumefaction are great, and the inflamed parts become livid; the fever is characterized by vital depression, quick and weak pulse, &c.; and the variety caused by animal poison or stings of insects often ends in gangrene.

Unlike in its prominent features to other diseases, I do not think it necessary to dwell on its distinguishing features, as I assume *no practical surgeon* could be mistaken in the diagnosis. From the extreme vascularity of the tongue, and its distensible covering, the organ is liable to swell to an enormous size with great rapidity, and hence the term *erectile Glossitis*. When the tongue suppurates the disease is called *suppurative Glossitis* and the form produced by mercury is called *mercurial Glossitis*.

The following are the most prominent symptoms, constitutional and local:—Rigors, pyrexia, headache, soreness in the throat (a symptom almost invariably present), anxiety, and turgescence of countenance; difficulty and pain in swallowing; unquenchable thirst; flow of saliva or mucous fluid; enlargement of sublingual glands; swelling and tenderness about the throat and beneath the lower maxilla; thickness of speech; peculiar voice, pain, redness, swelling, and occasionally protrusion of the tongue, and great enlargement of the papillæ; indentations of its edges; viscid exudation on its anterior surface.

The tongue is more frequently *protruded* from the mouth in the sympathetic forms proceeding from the excessive use of mercury, when the simultaneous affection of the tonsils, parotids, and parts in the vicinity, and the consequent tumefaction of them, press the organ outwards. In proportion to the swelling are the functions of the organ impaired, and in severe cases the voice and speech are much affected.

The swelling is best marked towards the base of the tongue and at one side only; the *swelling occasionally prevents the epiglottis from rising*, and fills up the mouth and isthmus faucium so as to *threaten suffocation*.

At the commencement, the sense of taste is very acute, owing to the excited state of the nerves and increased vascu-

larity of the papillæ; as the disease proceeds taste is partially destroyed, owing to the pressure on the nervous fibrillæ from the turgid vessels and fluid effused into the structure of the organ, and partly to the thick mucus or lymph covering the inflamed surface.

Inflammation of the tongue may terminate in resolution, suppuration, sphacelation, or suffocation.

Abscess in the tongue is said to be rare, owing, probably, to the muscular structure of the organ. In consequence of the *effusion of lymph* into the substance of the tongue considerable *hardness* and enlargement sometimes remain long after the acute stage of the disease has been subdued.

Protrusion of the tongue prevents dyspnœa, as it allows the larynx to remain open.

TREATMENT OF GLOSSITIS.

Leeches to the upper surface of the organ (the tongue having been previously well dried); the bleeding from the leech-bites to be encouraged by the patient washing out the mouth frequently with warm water; punctures with a lancet beneath the tongue (Velpeau speaks of puncturing the ranine veins); the administration of a purgative and an antimonial mixture when the inflammatory symptoms are high. *If the case has not been seen in its early stage, and the symptoms are urgent, no time should be lost in making free and deep longitudinal incisions on the upper surface of the tongue,* commencing sufficiently *backwards,* and keeping the edge of the *bistoury parallel* with the septum to avoid the possibility of injuring the vessels. There is another caution necessary in incising the tongue—the œdema may so far involve only one side, as to cause the *lower* surface, which yields the more readily, to be turned directly *upwards,* in which case the incision made *above* passes into the tissues *normally inferior.* The hæmorrhage from the engorged organ is very considerable, and sometimes alarming to the patient and Surgeon, but in the majority of cases it ceases very soon; if the patient be feeble a pledget of lint introduced into the wound will have the desired effect, and was resorted to in one of my cases. Pieces of ice, if at hand, would be of much service in such a case. I find incisions were first recommended by Job Meckren, in the

year 1656. They never fail in affording a speedy relief when *made sufficiently deep and far back.* Scarifications of timid operators are to be deprecated. The incisions gape widely at the time, but in a few hours close, and appear to be mere scratches, and sometimes it is difficult to see them on the following day. I observed in one instance that the wound re-opened.

The patient's strength should be supported by beef-tea, milk, and other unstimulating nutritious articles of diet.

My friend (and former pupil) Dr. Usher of Tinahely, lately informed me of a case of Glossitis which occurred in his neighbourhood; incisions were recommended, but the man refused to submit to the treatment, and died from suffocation.

In a case when the symptoms are too urgent to admit of waiting for the result of incisions, tracheotomy should be performed without delay.

In consequence of some members of the Surgical Society having expressed their doubts that the cases which I reported were instances of genuine Glossitis, I think it not unimportant to append the following letter which I have received from Professor Geoghegan :—

"Merrion-street.

"DEAR CROLY,—I read your cases with interest, and have no doubt that the term "Glossitis" applied to them is quite correct. They (the cases) are obviously identical in character with those to which you allude as described by myself some years since. Why the term "Glossitis" is objected to is not, I think, very clear; and it appears to me that dissentients are *bound to state the distinctive* characters which they assign to genuine glossitis, *as contrasted with the phenomena* of the cases related by you and myself. In *our* cases we have an affection arising suddenly, running a rapid course, attended by pain, swelling, tenderness, and increased vascularity of the organ engaged and frequently followed by abscess—the latter not uncommonly in the substance of the tongue. The disease finally is arrested by the same measures which are efficient in inflammation. I do not, therefore, feel myself authorized to resort to hair-splitting, and to refuse to place the disease in the category of inflammation, merely because authors assert that acute Glossitis is rare. I well recollect a similar case, many years since, in the hands of Sir P. Crampton, who did not hesitate to *call it Glossitis,* and to treat it as such.—Yours, sincerely,

"T. G. GEOGHEGAN.

"H. G. Croly, Esq., F.R.C.S.I."

Part II.

SCALDS OF THE WINDPIPE FROM ATTEMPTS TO SWALLOW BOILING WATER.

SUCCESSFULLY TREATED.

There are no cases met by the surgeon more painful to witness or requiring more careful treatment and anxious watching than those designated "scalds of the glottis." The subject has been alluded to by most Surgical and Medical writers, by some (as I shall refer to bye and bye) in special and able articles, by others in a less striking way. The importance of the subject I consider a sufficient apology for bringing under the notice of the Society the following cases which came under my observation lately in the Children's Ward of the City of Dublin Hospital :—

John Mooney, aged 2 years, was admitted into the City of Dublin Hospital on Monday evening, December 11th, 1865, at 4.15 o'clock. His mother, who carried him to hospital, stated that at twelve o'clock on that day the child attempted to drink water from the spout of a kettle which was *boiling* on the fire at her residence (9, Stephen's-place) ; he spat out the water at once, and suffered much pain from the scalded state of his mouth and lips, which were rapidly blistered ; he cried constantly, put his hands up to his mouth and called out for drinks. At four o'clock his breathing became affected, and his mother lost no more time in seeking relief for him ; I was sent for at once and arrived shortly, when I found the child in the following condition, which I noted :—Face very pale, extremities cold, mouth open, tongue protruded, lips vesicated, pulse rapid and feeble, urgent dyspnœa, croupy and stridulous breathing. I endeavoured to feel the epiglottis with my finger, but the child resisted, and so severe a spasm was produced that I did not attempt any further examination of that kind ; no dulness on percussing the chest, but râles were heard. The mother told me the child had just recovered from a severe attack of bronchitis. I had the child's bed brought near the fire ; a hot jar applied to the feet ; warm flannels wrapped round the body, and a little warm wine and water administered, which the child swallowed with considerable dif-

ficulty; he made an occasional violent effort to drink, but could not always succeed. I placed a screen round the bed so as to keep up a warm temperature.

I rubbed in freely mercurial ointment to the axillæ, chest, abdomen, and inside of thighs; applied hot flannels over the chest, and prescribed calomel and James's powder, one grain of each to be given every hour.

The symptoms became aggravated at times; the child was drowsy and tossed about in a restless manner. The instruments required for tracheotomy were arranged on the tray by Mr. Irving, the junior resident pupil, when I was sent for.

I remained in the ward watching the case and considering what ought to be done.

I recollected my friend Dr. Bevan having mentioned to me, some years ago, that almost all the cases of this kind in which he had performed tracheotomy died, and those treated by the mercurial plan recovered. My colleague, Dr. Hargrave, saw the case with me soon after admission to hospital.

At 9.30 Dr. Hargrave again visited the child with me; the symptoms still continued severe. At 10.30 (five and a-half hours after the child's admission) I left the hospital, with directions to keep up the mercurial treatment and stimulants, and to send for me if the child got worse.

Twelve o'clock: Mr. Irving noted—Child in heavy stupor.

Half-past two o'clock: Bowels affected *(green-coloured evacuation)*; child coughs occasionally.

Three o'clock: Breathing in every respect better; respirations 52 in a minute.

Seven o'clock: Perspiring copiously.

Half-past eight o'clock: breathing much less distressed; child asked for a drink.

Half-past nine o'clock: Breathing freely; took plenty of wine and beef-tea all day; bowels acted well; free discharge of saliva.

13th: Well.

The second case occurred in a child, three years of age (a year ago); the symptoms were not so urgent as in the last one; it was treated by mercury; child became profusely *salivated*, and remained some time in hospital with sore mouth. I regret that the notes taken by Mr. Wheeler have been lost.

I shall now cite brief extracts from various authors, and then add tabular statement of cases treated by mercury and those in which tracheotomy was performed, for the purpose of comparison.

Mr. Samuel Cooper, in his "First Lines," page 738, says :— "In University College Hospital tracheotomy has been performed in several instances of this kind, but generally without success.

Mr. Cooper also says (in a note) :—"One or two children treated by me recovered under the free use of calomel."

The late Professor Porter, in his excellent practical work on the "Larynx and Trachea," says (at page 177) :—

"Some of the most beautifully successful operations of bronchotomy that have ever been performed were undertaken for the relief of the accidents that form the subject of this chapter; at the same time that I believe *there is no case in which it has been so often found to fail.*"

And at page 186 the same distinguished surgeon says :—

"In the management of these cases, then, it is evident that a vast deal must be left to the discernment of the surgeon in the first instance, and to his decision afterwards. Where we have such abundant evidence of the occasional success of *antiphlogistic* measures, I think they should always be adopted and persevered in until the breathing becomes so affected that there is every *reasonable probability* of the operation becoming necessary. At this crisis it should not only be proposed, but its advantages impressed upon the patient's friends; and although a person might thus be now and again subjected to it without absolute necessity, yet I feel convinced that numbers would be preserved that otherwise are doomed to perish.

"Even in extreme cases, although not friendly to the performance of operations, unless on pathological principles, I do not think it ought to be absolutely declined; it affords only a chance; but it is a chance that should be offered, because in the present state of our knowledge there is much uncertainty, and the records of surgery give encouraging assurances of its *occasional* success."

A successful case of tracheotomy, performed by Mr. Adams under most unpromising circumstances, is then detailed. Bronchitis followed.

Professor Hargrave, in his practical work on "Operative

Surgery," page 327, under the head of Laryngotomy and Tracheotomy, says :—"When boiling water has been swallowed, which causes such inflammation of the mucous membrane about the rima glottidis, and effusion into the lax submucous cellular tissue, situated in this place, as will prevent any air being admitted into the lungs; by the operation the free ingress and egress of the air is preserved and suffocation prevented, until all the inflammatory symptoms have subsided, when it will then resume its natural course."

TRACHEOTOMY FOR SCALDS OF THE GLOTTIS.

EXTRACT FROM THE "LONDON AND PROVINCIAL PRACTICE OF MEDICINE AND SURGERY," OCTOBER, 1859.

"All the cases in this group have, of course, young children for their subjects. It would appear that the age liable to the accident of scalded glottis is between twelve months and five years. Children under the age of a year are unable to accomplish the feat of drinking from the kettle-spout, and those upwards of five are too sensible to attempt it. It might have been supposed that this extraordinary form of accident would occur with extreme rarity; but, as will be seen, we are able to adduce fourteen examples of it. Of these fourteen cases eleven ended in death, and only three in recovery. In one the fluid was heated oil, but in all the others it was boiling water from the kettle. Nearly all the little patients were between two and three years old, three or four only being above or below these limits of age."

EXTRACT FROM LISTON'S "ELEMENTS OF SURGERY," PAGE 440.

He says :—"The fauces and larynx of children are occasionally injured by the attempts to swallow by mistake boiling water, and inhaling the steam. The alarming symptoms follow in a very few hours, in consequence of the formation of numerous minute vesicles, with swelling, from effusion of serum into the submucous tissue. Great pain is generally experienced at the moment, but after crying violently the child may fall asleep and awaken croupy, and with threatened suffocation. By this time inflammatory action has been fairly established, the submucous effusion has begun to take place, and it is this that gives rise to the danger.

"The excited action is to be combated by leeching and exhibition of calomel in small doses, with or without opium fre-

quently repeated, so as to arrest the lymphatic effusion which is apt to supervene. When these means fail, tracheotomy must be resorted to without delay.

"The fauces and upper part of the larynx are only involved at first; this practice is sound and good, success may be expected from the operation."

Miller, in his "System of Surgery" (page 865), says:—"If antiphlogistics fail and asphyxia threaten by obstruction in the larynx, tracheotomy is to be had recourse to at once; not reserving the operation, especially in the child, until by the extreme urgency of the symptoms it cannot possibly be longer delayed, and recovery is rendered more than problematical by congestion in the brain, in the lungs, or in both."

In the 3rd vol. of the "Dublin Hospital Reports," page 379, two cases are recorded by Dr. Burgess, of Clonmel, in which bronchotomy was performed; one recovered and one died. He says he met five cases—two were treated by tracheotomy—and that he published them with a view of encouraging early bronchotomy.

"Holmes' System of Surgery," vol. 3, recommends in early stages of laryngitis vigorous antiphlogistic treatment. Mercury rapidly; tartar emetic, if used, should be given in such doses as to diminish the circulation, but not to cause vomiting, since the contents of the stomach might enter the larynx and produce suffocation.

"The time," he says, "for bleeding has passed when respiration becomes greatly obstructed, and this may be known by the leaden hue of the features, blueness of the lips, a cold clammy skin, and feeble pulse. Bleeding under such circumstances would be worse than injurious. It would probably be fatal.

"If the surgeon finds that the antiphlogistic treatment fails, or if he has been summoned to the case in its more advanced stage, he should at once propose tracheotomy."

Mr. Erichsen says:—"If urgent symptoms of dyspnœa set in, tracheotomy must be performed without delay," and adds, "in the majority of cases that have fallen under my observation, in which the operation has been performed, the issue has been a fatal one from the speedy supervention of bronchopneumonia."

Druitt (author of the "Surgeons' Vade-Mecum") says :— "Scalds of the glottis, through swallowing boiling water or corrosive fluids, produce the ordinary symptoms of laryngitis, suffocative cough, and dyspnœa. Treatment—Leeches, ice to the throat, opiates or chloroform to tranquillize, and tracheotomy if required."

In the DUBLIN QUARTERLY JOURNAL for February, 1848, Dr. Jameson, one of the Surgeons to Mercer's Hospital, published an admirable paper on "Œdema of the Glottis," occasioned by attempting to swallow boiling water, illustrated by thirteen cases.

In eleven of those cases tracheotomy was performed, and eight died.

Two cases, treated by leeching and calomel, recovered; one of them was brought out of hospital too soon by the friends, got bronchitis, and died.

Dr. Jameson says :—"In all cases, when boiling water has been taken, or attempted to have been taken, into the mouth, the danger at all times is imminent; for, although the little patients seem to suffer comparatively very little for the first few hours, still symptoms of grave importance set in sooner or later, which, if not combated by appropriate treatment, will either kill the patient or call for the operation of tracheotomy. The operation is, therefore, I think, imperatively called for, when the usual remedies, such as emetics, leeches, and the application of heat to the surface, &c., fail in allaying the urgent symptoms."

In the same journal for February, 1860, Dr. Philip Bevan (also Surgeon to Mercer's Hospital and Professor of Anatomy in the School of our College) published a paper on "Scalds of the Larynx," and gave the notes of four cases, all urgent, treated by leeching, antimony, and mercury, without operation; all recovered.

Dr. Bevan divided the symptoms into three stages. In the *first* the mouth and fauces alone are affected, but the respiration is unimpaired. In the *second* the ingress of air is impeded by laryngitis; and œdema glottidis and incipient congestion of the lungs are the result; in the *third* stage engorgement of the lungs and consequent congestion of the brain are added to the previous symptoms.

"The cases (says Dr. Bevan) I now publish were fully as bad

as to justify the operation; the stridulous breathing, bloated pale features, fixed pupils, rapid feeble pulse, congested lungs, cold surface, hard erect epiglottis, and incipient coma, were certainly as bad as in many cases where I have both operated myself and seen the operation performed by other surgeons without success. I therefore have a right to conclude that had the operation been performed not more than one out of the four would have recovered."

"If a patient (he continues) is in *extremis*, then, no doubt, the surgeon is justified in trying the operation, as, although nearly hopeless, it is the only treatment which can save the patient from immediate dissolution. Still I believe that the antiphlogistic treatment, if conducted with sufficient rapidity, will be far more successful."

Dr. Bevan commences his treatment with an emetic, followed by a cathartic enema, then leeches to the sternum; in the second stage he gives calomel every hour or half hour, and advises repetition of leeching, and the body to be rubbed with mercurial ointment.

As soon as the mercury produced the *green stools* the symptoms in every case were improved, and the child recovered. The lungs are first relieved, the brain next, and the larynx last of all.

Dr. Bevan never saw an instance of death when mercury had affected the system except when tracheotomy had been performed. He says he hopes others may be induced to publish their cases treated by mercury.

Through the kindness of my friends, Mr. Porter and Professor Hughes, I am enabled to exhibit to the Society two beautiful drawings. The first, taken from a child who died in the Meath Hospital under the care of the late Professor Porter—the cause of death having been bronchitis, brought on by attempting to swallow boiling water. Vesications on the root of the tongue (alluded to by Liston) are well seen, also the vascular state of the lining membrane of the larynx and trachea. The other drawing (a very beautiful one) shows the hepatized condition of the lungs and the vascular state of the lining membrane of the trachea.

It is quite evident from what I have just read that most writers on this important subject recommend leeching and calomel treatment, but all speak of *tracheotomy* as the special

chance of saving life. It appears to me that Dr. Bevan was the first surgeon who relied solely on the mercurial treatment. I feel certain that my cases were so urgent as to warrant tracheotomy, and I am equally sure that at all events the child Mooney, from his exhausted condition and delicate chest, would have died, had I operated, either at the time or subsequently, from bronchitis or pneumonia. In one of my patients salivation occurred. I am of opinion that dry-cupping the chest, especially over the base of the lungs, would relieve the congested condition of those organs, and I would suggest turpentine fomentations to the chest afterwards. Keeping up the temperature of the room is of great moment, and the exhibition of stimulants and light broths to support the exhausted condition of the little sufferers.

The practitioner should have his mind made up how he is to treat such cases of emergency. If he consults any of the modern class-books he finds no special line of treatment recommended; all advise operation, and thus life after life is lost. The MERCURIAL TREATMENT is not sufficiently known, and though it may appear to allow the symptoms to go on unchecked, its action as an accumulative medicine is in no case more sudden or effective than in those now brought forward. I am in hopes that by publishing my cases treated by mercury, others may be induced to do likewise, and thus be the means of saving the lives of the little sufferers who unfortunately *attempt* to drink boiling water from the kettle-spout.

I venture to offer the following aphorisms, the result of my inquiries, on "scalds of the glottis."

1. The water is not swallowed, but the steam produces œdema of the glottis.

2. The affection divided into three stages (Dr. Bevan).

3. Symptoms not urgent at first, apt to mislead those not experienced in such cases.

4. Importance of active *mercurial* treatment (not antiphlogistic), from the moment we first see the child, by applying strong mercurial ointment to the axillæ, chest, and inside of the thighs, and administering calomel in grain or two-grain doses every half hour or hour.

5. The necessity of having the apartment kept warm (a thermometer being used for guidance) to prevent chest complications.

6. Depletion by leeches or antimony must (if adopted) be used early and with caution.

7. The collapse should be treated by stimulants if the child can swallow, if not, stimulating and nutritive injections should be administered, the extremities being kept warm.

8. The lungs are almost invariably congested at some period of the illness, bronchitis or pneumonia being a common cause of death.

9. I suggest dry-cupping over the back of the lungs, followed by turpentine fomentations, to relieve pulmonary congestion.

10. When the green stools appear early (or salivation occurs) the child gets suddenly well. This is very remarkable, and occurs most unexpectedly.

11. Tracheotomy should not, in my opinion, be performed in such cases.

Tabular Statement of Fourteen Cases of Tracheotomy for Scalds of the Glottis.

Eleven Deaths.

NO.	HOSPITAL AND SURGEON.	AGE	TIME ELAPSED BETWEEN ACCIDENT AND OPERATION.	SYMPTOMS.	OPERATION.	RESULT.	REMARKS.
1	Guy's — Mr. Birkett.	3½	7 hours.	Distressing dyspnœa.	Tracheotomy.	Death.	Post-mortem examination revealed acute pneumonia.
2	Guy's—Mr. Gallaway.	3	18 hours.	Almost dead from dyspnœa.	Tracheotomy — Probably hæmorrhage (into trachea?).	Death.	
3	Guy's—Mr. Gallaway.	1	3 or 4 hours.	Symptoms of laryngitis suddenly supervened.	Tracheotomy—Great relief.	Recovered.	Canula removed in six days.
4	Guy's—Mr. Gallaway.	3	7 hours.	Urgent dyspnœa.	Tracheotomy — Immediate relief.	Recovered.	
5	Guy's — Mr. Birkett.	2½	7 hours.	Suffocation impending.	Tracheotomy.	Recovered.	The child had suffered from whooping-cough, which returned severely after the operation.
6	The London—House Surgeon.	1¼	—	Intense dyspnœa.	Tracheotomy—Great relief.	Death.	Autopsy—Epiglottis charred and shrivelled and great œdema of glottis.
7	The London—Mr. Wordsworth.	4	5 hours.	Dyspnœa.	Tracheotomy—Great relief.	Death.	Autopsy—Charring of the glottis and epiglottis, and collapse of parts of the lung.
8	The London—Mr. Wordsworth.	2½	1½ hours.	Dyspnœa.	Tracheotomy.	Death.	Autopsy—The larynx only examined. Mucous membrane inflamed and swollen, so as to obstruct the rima glottidis.
9	St. George's.	5	—	—	Tracheotomy.	Death.	
10	St. Bartholomew's.	3	—	Dyspnœa.	Tracheotomy—Great relief for some hours.	Death.	Autopsy—Extensive injury about the glottis and pneumonia.
11	Staffordshire General Infirmary—House Surgeon.	2	—	Suffocation imminent.	Tracheotomy—Great relief for two days.	Death.	Autopsy—Acute softening in right lung and about its root.
12	The Middlesex—House Surgeon.	2	—	Dyspnœa.	Tracheotomy—With relief.	Death.	
13	St. Mary's—Mr. Spenser.	3	17 hours.	Urgent dyspnœa.	Tracheotomy — Immediate relief.	Death.	Autopsy—Epiglottis thickened, and with neighbouring mucous membrane, coated with lymph; lungs congested.
14	King's College—House Surgeon.	3½	12 hours.	Unable to speak or swallow.	Tracheotomy.	Death.	

Tabular Statement of Twelve Cases of Scalds of the Glottis, Treated by Mercury—Without Operation.

All Recovered.

NO.	HOSPITAL AND SURGEON.	AGE.	TIME ELAPSED BETWEEN ACCIDENT AND COMMENCEMENT OF TREATMENT.	SYMPTOMS.	TREATMENT.	RESULT.
1	"City of Dublin" —Mr. Croly.	2	5 hours.	Urgent dyspnœa; cold clammy sweat; croupy breathing; cold extremities.	Mercurial ointment, calomel with James's powder, stimulants, hot applications to body.	Recovery.
2	"City of Dublin" —Mr. Croly.	3	—	Stridulous breathing; scalded lips; congestion of face.	Mercurial ointment, leeches, calomel, and James's powder.	Recovery.
3	"City of Dublin" Dr. Geoghegan.	4	5 hours.	Extreme dyspnœa.	Calomel, 1 grain every hour, and leeches.	Recovery.
4	"City of Dublin" Dr. Geoghegan.	3½	2 hours.	Croupy cough and dyspnœa.	Calomel and James's powder, and mercurial ointment.	Recovery.
5	"Mercer's"— Dr. Bevan.	2½	15 hours.	Respiration most difficult, hurried, and stridulous.	Tartar emetic, leeches, calomel.	Recovery.
6	"Mercer's"— Dr. Bevan.	3	15 hours.	Difficult and croupy respiration; epiglottis swollen; sonorous râles over base of both lungs.	Tartar emetic, leeches, mercurial ointment.	Recovery.
7	"Mercer's"— Dr. Bevan.	1 10m	3 hours.	Stridulous and croupy breathing; cold extremities; cold sweat over face and chest.	Leeches, antimony, mercurial ointment.	Recovery.
8	"Mercer's"— Dr. Bevan.	2½	8 hours.	Stridulous breathing; cold clammy sweat over body.	Tartar emetic, calomel, mercurial ointment.	Recovery.
9	"Mercer's"— Dr. Bevan.	1 8m	4½ hours.	Intense dyspnœa, with stridulous breathing.	Leech to sternum, calomel.	Recovery.
10	"Mercer's"— Dr. Ledwich.	2	7 hours.	Stridulous breathing; rapid respiration.	Calomel, leeches.	Recovery.
11	"Mercer's"— Dr. Jameson.	3½	7 hours.	Stridulous croupy breathing.	Emetics, calomel, leeches.	Recovery.
12	"Mercer's"— Dr. Jameson.	2	1 night.	Stridulous and hurried breathing.	Emetics, calomel, leeches.	Recovery.