ON THREE CASES
OF
ACUTE TUBERCULAR ULCERATION OF
THE FAUCES.

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WE propose briefly to narrate the cases upon which this paper is based, and then to offer a few remarks upon the disease.

CASE 1.—Henry A—, æt. 7, was brought to the out-patient room at the Hospital for Sick Children, Great Ormond Street, in February of this year. When first seen his mother only complained of his wasting and of the enlarged glands in his neck; at that time the latter were very large. Nothing amiss was detected in his fauces. He was a delicate, thin child of a somewhat tubercular aspect and had been under treatment during the preceding

summer for whooping-cough. He had not had any other ailment.

Three weeks later, on March 8th, we learnt that he had been complaining of sore-throat and difficulty in swallowing for one week, and the soft palate and uvula were found to present numerous minute yellowish superficial points; the tonsils were not visible; the glands in his neck were certainly smaller than when first seen.

The mother further told us that since the birth of this child she had had one other but that it died shortly after birth. The child's father was said to be healthy, but there was a history of phthisis in his family, and one of his brothers, who was considered consumptive, had died at the age of twenty-eight with some throat affection, loss of voice having been a prominent symptom, and it was owing to this fact that on this occasion the mother asked us whether her child's throat was "consumptive."

Next week the child was too ill to be brought, so we saw him at his parents' home; he was restless and feverish at night, was taking his food badly, and rapidly losing flesh. The soft palate and uvula presented the same yellowish speckled appearance that they had on the previous occasion except that this was now much more marked; the specks were each about the size of a pin's head and in places were so numerous as almost to be confluent, the intervening mucous membrane being pale. There was much tenacious secretion about the fauces; the glands in his neck had still further decreased in size. Abundant sharp râles could be heard all over the chest, but owing to his feeble state no thorough examination could be made.

Beyond rapid emaciation and steadily increasing debility there was nothing in the after-progress of the case calling for comment, and he died a fortnight after the throat affection was first recognised and three weeks after the first complaint of sore-throat. The night before his death he was delirious. The body was examined nine hours after death.

The glands in the neck proved to be hardly, if at all, enlarged, and none were caseous. On examining the fauces and larynx very extensive, but superficial, ulceration was found affecting the posterior or nasal aspect of the soft palate, spreading down and around the pharynx; the anterior aspect of the uvula and soft palate was in a similar state. The tonsils were not enlarged or in any way affected; the ulceration did not extend into the œsophagus.

The epiglottis was greatly thickened, the lining membrane on its inner aspect as well as that of the whole larynx showing a very acute, but quite superficial, punctiform ulceration; the lining membrane of the trachea was very deeply injected. The drawing on Plate III shows the situation of the lesions well. In the specimen itself the effects of the spirit render it difficult to recognise the changes which we have endeavoured to describe.

There were general pleural adhesions over both lungs, those on the left side appearing to be of the longer standing. Both lungs were almost solid throughout from abundant deposits of closely aggregated tubercles, the lower lobes being the least affected; the upper lobe on the left side had already broken down in places into small cavities. The heart and pericardium were natural. The tracheal and bronchial glands were enlarged but not caseous. A few very early tubercles were found in the capsule of the spleen; the liver and kidneys were normal. The ileum was opened just above the cæcum and found to be ulcerated. Dr. F. W. Mott has been kind enough to examine a portion of the ulcerated pharynx for us and has given us the subjoined report: "Under a low power (100 diameters) the sections, stained with logwood and mounted in oil of cloves and Canada balsam, presented the following appearances: A round-celled infiltration throughout the mucous and submucous tissues, and involving the superficial layers of the muscle to a slight degree. The round cells are especially abundant near the surface, and are collected into little aggregations

forming granulations. Nowhere have these granulations undergone caseation. The mucous glands present the following appearances: The epithelial cells are everywhere destroyed and replaced by granular disintegrated matter. Around the alveoli outside the basement membrane are great numbers of small round cells. A few giant cells are seen. With high power ($\frac{1}{16}$) in oil immersion (sections stained with the Weigert-Erich method and mounted in oil of cloves and Canada balsam) numerous bacilli tuberculosis are seen, especially abundant in the collections of small round cells, many being contained within the cells, others lying between them. Upon the surface no epithelial cells are seen, only round cells, disintegrated matter, and micro-organisms, for the most part not tubercular."

The tubercular nature of the ulceration is thus fully established.

CASE 2.—George A. S—, æt. 3 years 5 months, was admitted into the Hospital for Sick Children on August 27th, 1880, under the care of Dr. D. B. Lees, who has kindly permitted us to report the case.

The mother gave the following history. The child has been ailing since he had whooping-cough eighteen months ago, cough being the chief trouble. He has had diarrhœa for four months, and been passing blood in his motions; and also for the last two months the motions have contained matter. He has had lumps in his neck for six months, these have been worse for the last month. About six weeks ago he complained of sore throat, and for three weeks drinks have returned through his nose, and his speech has been indistinct and nasal. There are three other children, healthy. The parents are healthy, but there is a history of "consumption" on the mother's side.

On admission the child was found to be pale and wasted. The tongue was clean, the tonsils a little swollen, and the glands in the neck decidedly enlarged. The child's speech was so indistinct that it was quite unintelligible; fluids did not return through his nose, nor did drinking cause

him to cough, but it was noticed that he drank slowly and with great caution. His chest was pigeon-breasted, and his ribs beaded ; there was no dulness ; there was a fair entry of air all over, and no adventitious sounds were heard. The abdomen was big, not very tense, tympanitic everywhere, more resistant on the right than the left side ; no fluctuation ; the spleen could not be felt. Limbs somewhat rickety.

The after-progress of the case may be briefly reported. He got steadily weaker, there was marked but irregular fever, some sharp moist râles became audible in his chest, and he had diarrhœa. A few days before his death it was noticed that there was superficial ulceration of the soft palate on the left side close to the base of the uvula, and this ulceration spread and became deeper, the edges of the ulcerated area presenting a ragged appearance. The condition was recognised as being probably of a tubercular nature. Death occurred on September 9th.

At the post-mortem examination there was found a superficial ulceration of the soft palate, extending along its free margin on both sides of the uvula, the edges of the ulcerated portion being irregular. The pharyngeal aspect of the soft palate and the posterior wall of the pharynx presented a superficial honeycomb appearance, formed by numerous small, irregularly-shaped bosses of substance of the mucous membrane alone. There was some doubt as to whether there was any thickening of the soft palate where it was not ulcerated ; the epiglottis was thickened, the larynx healthy.

General tuberculosis of both lungs was found, the signs during life having no doubt been in some degree masked by the rather unusual amount of emphysema which was present. There was extensive ulceration of the small intestines, ulcers being also found in the ascending colon, the sigmoid flexure, and even in the rectum. The mesenteric glands were enlarged and caseous. The liver and spleen contained caseous nodules. A large caseous mass was found in the left lobe of the cerebellum, and some

transparent granulations in the left Sylvian fissure. There was pus in the internal ear, and some caries of bone. There were no tubercles in the choroids.

CASE 3. John R. M—, æt. 6 years 3 months, was admitted into the Hospital for Sick Children on July 1st, 1881, under the care of Dr. Cheadle, by whose kind permission we are enabled to report the case. His history was that, two months previously a lump had appeared under his chin, and that this had been opened at one of the general hospitals, and had been discharging ever since; other lumps had appeared in his neck and under the jaw soon afterwards, and had continued to increase in size. For two weeks previous to his admission he had been complaining of a sore throat and pain on swallowing, but there had been no return of fluids through his nose, and no alteration in his voice. He had been losing flesh, was feverish, and at times had a cough. His appetite was stated to be good; his bowels confined. The parents were healthy, and denied any consumptive taint in their families; they had two other children in good health and had lost five, all, however, under the age of two years.

On admission the patient was thin and febrile, his tongue was furred; the tonsils and uvula were swollen, but not red; both here and on the soft palate some minute white specks could be seen; the glands in his neck were greatly enlarged, and there was a discharging abscess under his chin. Nothing was found in the chest except some coarse rhonchus all over, the abdomen appeared natural, and his urine was normal.

A few days after his admission it was noticed that there was distinct irregular abrasion of the mucous membrane on the posterior wall of the pharynx, but the examination of the fauces was always attended with great difficulty, owing to the large amount of viscid secretion that seemed to be constantly there, and to the patient's inability to open his mouth widely. There was pain on swallowing, and pain in his left ear after drinking quickly.

There had been a considerable degree of fever, and he perspired much during sleep.

After this there was nothing further calling for notice ; the fever and emaciation continued, and no satisfactory examination of his throat or chest was possible ; his voice was reduced to a mere whisper. He died on July 29th.

At the post-mortem examination, the whole of the pharynx was found to be extensively but superficially ulcerated, the ulceration extending to both aspects of the soft palate, and into the thyroid pouches ; below it ceased at the œsophagus. The base of the tongue showed superficial erosion. The epiglottis was very thin, and the mucous membrane of the larynx above the cords was extensively ulcerated ; the cords were healthy. A large abscess-cavity was found beneath the jaw on the left side extending round to the back of the pharynx.

Both lungs were studded throughout with tubercles, the tracheal and bronchial glands were enlarged and caseous. From the middle of the jejunum to the ileo-cæcal valve the small intestine showed most extensive ulceration, some of the ulcers completely encircling the gut ; the large intestine was healthy. The mesenteric glands were enlarged and caseous, and several of them had broken down. No tubercles were found in the other viscera ; the liver was somewhat fatty.

Although in these two latter cases no microscopical examination of the pharynx was made, we do not think there can be the slightest doubt that the ulceration was tubercular.

We have ventured to bring these cases before the Society, not so much in respect of their rarity, which we believe to be more apparent than real, but because the subject of acute pharyngeal tuberculosis has received scant notice in this country. The only cases we have met with in English medical literature are those described by Dr. Gee in the 7th and 11th volumes of the ' St. Bartholomew's Hospital Reports,' and those mentioned by Dr.

Mackenzie in the second volume of his work on 'Diseases of the Throat.' Our medical writers ignore the subject or pass it over with the remark, either that tuberculosis of the pharynx is rare, or that it is always consecutive to tuberculosis of the larynx.

On the Continent, however, and especially in France, the subject has met with far more attention. In Paris, cases have repeatedly been brought before the Société Médicale des Hôpitaux, the record of which will be found in almost every volume of the 'Bulletins' of that Society for the past fifteen years, whilst the subject has been specially treated of in more than one thesis, and notably by M. Barth¹ in 1880. The name of M. Isambert, too, ought to be mentioned as one of the earliest, if not actually the first, in that country, to recognise the nature of the affection, and give a concise description of the disease. In Germany, Wendt, Krause, O. Weber, E. and B. Wagner, and Fränkel have published cases, the last mentioned having made important contributions to the literature of the subject.

As to the relative frequency of this affection the following particulars may be of interest: Fränkel found pharyngeal tuberculosis only once out of 150 necropsies conducted at the Pathological Institute of Berlin during 1865-6,² but later, in 1881,³ he got a much higher percentage, as he found 10 cases of pharyngeal tuberculosis out of a total of 50 cases examined. Navratil⁴ found that in 20 out of 246 cases of laryngeal tuberculosis the disease had spread to the pharynx. Boecker and Schoetz stated to the Medical Society of Berlin, during a discussion on a case described by Krause, that they had met with 12 cases of pharyngeal tuberculosis in a total of 2950 cases of throat disease seen by them in two years, and Boecker mentioned

¹ 'De la Tuberculose du Pharynx, et de l'Angine Tuberculeuse.' Paris, 1880.

² 'Berliner Klin. Woch.,' 1876, pp. 657, 678.

³ 'Zeitschrift für Ohrenh.,' x, 2, p. 113.

⁴ 'Études Laryngoscop.,' Leipzig, 1871, p. 28.

having seen 8 cases in addition to these. Gurovitch¹ mentions 11 cases that had come under his own observation, and thinks that a certain number of cases must occur in the practice of most laryngologists. Unfortunately, in regard to the above statistics, it is impossible to tell which were instances of acute, and which of chronic, pharyngeal tuberculosis, a point to which we shall refer again directly. The post-mortem records of the Hospital for Sick Children, for the twenty-five years ending in 1884, yield 8 cases of acute tubercular ulceration of the fauces out of a total of 380 cases of tuberculosis; two of these are given in this paper (Nos. 2 and 3) and two have already been referred to as published by Dr. Gee.

We believe that a sharp distinction can, and ought, to be drawn between chronic and acute tubercular ulceration of the fauces. The former is essentially a local tuberculosis commencing in the pharynx or spreading there from the larynx, the latter is only a part of general tuberculosis.

Krishaber² and Barth³ have shown that the affection may commence in the soft palate as an acute tuberculosis of the small adenoid glands. Microscopically, they found the follicles swollen and infiltrated with lymphoid cells, more numerous and more closely packed than in the normal state. In the centre the cells degenerated, the reticulum disappeared, and an abscess was formed, discharging externally, and causing a small rounded ulceration. In the two cases recorded by these authors, very acute general tuberculosis accompanied the condition, and death occurred in a few days. Wendt⁴ describes a destructive follicular pharyngitis, which he terms pharyngitis scrofulosa, occurring in tuberculous subjects and also in the course of scrofula, in congenital and acquired syphilis, and even in healthy people. The follicles are attacked in

¹ 'St. Petersburg Dissertation.'

² 'Thèse de Paris,' 1877.

³ Loc. cit.

⁴ 'Ziemssen's Cyclopædia,' vol. vii, p. 74.

great numbers in the lower part of the pharynx, ulceration ensues, not only in the follicles, but also in the intervening tissue, leaving a large ulcer on the posterior wall. Some of these ulcers, he says, showed nothing characteristic as to their origin, whilst others were follicular. It would seem probable that some of his cases were purely tubercular, whilst others were purely syphilitic, and some may have been, as Wendt seems inclined to think is frequently the case, the result of the combined effects of the two diatheses.

In the acute form (to which we consider our cases belong), the first sign is the appearance of small discrete papules on the soft palate, pillars of the fauces, and, still more rarely, on the posterior wall of the pharynx. In colour they are white, grey, or yellowish, and seem firmly embedded in the mucous membrane; they are indeed deposits of tubercle, and present the usual microscopical characters of that neoplasm. They soon attain a larger size, caseate, and undergo ulceration, rapidly implicating the surrounding parts, and ultimately causing great destruction of the mucous membrane lining the soft palate and adjoining parts. The mucous membrane in the immediate neighbourhood of the ulcers is swollen and congested, with tubercles scattered through it, and is often covered with a viscid, whitish secretion or exudation presenting some resemblance, at first sight, to diphtheritic membrane, but less organised and more friable. The retro-pharyngeal and cervical lymphatic glands become enlarged, and the latter sometimes suppurate; sometimes, and this happened in our Case No. 1, the enlargement of the glands entirely subsides before the termination of the case. The uvula is sometimes greatly thickened and elongated.

Of the ætiology of the acute affection we know nothing; whilst in regard to age, we find that it is most liable to occur at the period when tuberculosis is most frequent. Only four cases of its occurrence in children have been hitherto recorded, so far as we know, viz. two by Dr. Gee,

the patients being six and eight years old respectively, one by Wendt, who found a small tubercular ulcer on the pharyngeal tonsil of an infant nine months old (we are doubtful whether this case ought really to be included), and one by Isambert¹ in a child of four and a half years.

The first symptom, and often a very distressing one, is pain in the throat accompanied by more or less of dysphagia. On inspection of the fauces the greyish-white or yellowish punctiform speckled appearance, which we have endeavoured to describe above, will be seen, and is highly characteristic of the disease, though, owing to the large quantity of viscid secretion which so often covers the fauces in these cases, it is frequently difficult to establish its existence. In the course of a very few days these spots enlarge, coalesce, and break down to form small rounded ulcers, with the mucous membrane surrounding them swollen and sometimes congested. The edges of the ulcers are irregular, the bases have a caseous aspect, and they are surrounded by nodules in various stages of development preparatory to breaking down into ulcers. Eventually the ulcers coalesce to form one extensive raw surface, still covered with the viscid secretion already referred to. The disease appears not to spread into the œsophagus, but in one of the unrecorded Great Ormond Street cases mention is made of an ulcer in the œsophagus. The larynx does not often escape, and when it does, this is probably owing to the rapidity with which the disease has proved fatal. In our own cases and in others the onset of the laryngeal affection was marked by aphonia. It is not usual for the larynx to be extensively involved, and Fränkel notices that in none of his cases was any perichondritis present. A nasal quality of voice from the impaired action of some of the palatal muscles is almost the rule, and pain in the ear from implication of the Eustachian tube is very common, as has been pointed out by Traube and Barth, but Fränkel having failed to recognise any lesion of the Eustachian tube with the

¹ 'Bull. de la Soc. Méd. des Hôp. de Paris,' 1876.

rhinoscope surmises that the pain is reflex, travelling along the glosso-pharyngeal and Jacobson's nerves. Deafness has sometimes been found.

Well-marked physical signs in the lungs will generally be found, but Isambert not being able to detect any in some of his cases concluded, as we think somewhat hastily, that the disease might be primary in the pharynx. The inability to detect any physical signs in the lungs in a case of suspected tuberculosis does not, in our opinion, go far to establish that such tuberculosis does not exist. Intestinal ulceration would appear to be almost constant, though during life there is frequently no proof of it. There is always fever, and death is often ushered in by delirium, being due to exhaustion consequent upon the dysphagia as much as anything else.

As regards the diagnosis it is only in the earlier stages that there should be much difficulty. Follicular tonsillitis and diphtheria are the conditions which would first have to be eliminated, and this may be a matter of some difficulty. The tubercular affection is much more likely to begin on the soft palate than the tonsils, which may escape altogether, whilst the other maladies almost invariably commence with swelling of the tonsils.

Attention should always be paid to the mode of onset, but in many instances it must be admitted that it is almost impossible to recognise the complaint in the incipient stages. At a later period, the coalescence of the spots to form superficial ulcerations has very little in common with diphtheria. Syphilis is perhaps the only other disease which might produce a condition resembling the tubercular disease under consideration. The mucous patches of secondary or inherited syphilis would be distinguished by the absence of any surrounding inflammation or papules, by their co-existence on the mucous membrane of the cheeks and gums and on the tongue, and by their very slight tendency to undergo ulceration. Gummatous infiltration or ulceration would present no difficulty in the

earlier stages ; in the later ones, the rapid melting down and the deep ulceration should suffice to characterise it. The general symptoms should also be taken into consideration, and it would then be hardly possible that a mistake should be made.

Believing as we do that the condition is only a part of general tuberculosis, the prognosis is absolutely unfavourable. There is little to be said as to treatment. The general treatment would of course be tonic and supporting, but the dysphagia renders it very difficult to do much. Mackenzie recommends insufflations of morphia to relieve the pain, and we are inclined to think that cocaine spray might be used cautiously with a view to rendering possible the thorough application of iodoform, a trial of which is certainly indicated by its success in tubercular ulceration in other parts of the body. Gougenheim has reported a case where chronic tubercular ulceration of the fauces in a patient who presented no other sign of tuberculosis was thus cured.

We think our cases entirely bear out Dr. Gee's conclusions : " First, that there is a form of angina which must be called tuberculous, and which forms a part of general tuberculosis ; and next, that there is a form of tuberculosis which may be called anginal, inasmuch as during life the chief symptom relates to the fauces."

(For report of the discussion on this paper, see 'Proceedings of the Royal Medical and Chirurgical Society,' New Series, vol. ii, p. 150.)

DESCRIPTION OF PLATE III.

Acute Tubercular Ulceration of the Fauces.

(From a drawing made by Mr. E. Burgess.)