

were very numerous and widespread" (L. L. Powell), but it was not general in the marlstone or ironstone districts until the middle of February.

Further experience of the disease confirms my opinion that it is due to a microbe or bacillus unknown; that it probably belongs to the miasmatic class of diseases, of which ague is the type, and that it is allied to dengue. The disease is directly infectious, though in varying degrees, for if one member of a family is attacked others soon follow; but the infection is not dependent upon animal tissues only for development, but thrives and multiplies in the atmosphere or other external media in a manner which renders the disease widely epidemic in a way which is independent of infection from person to person. It is probably not very contagious, as although many persons in one house have had it, some of the inmates have escaped though in daily contact. It spreads from village to village in two ways: (a) by the infection being carried either in the person or clothes of convalescents and others, and (b) by means of the atmosphere, travelling in the direction of wind currents. A mild temperature, with a rather quiet atmosphere, appears to have favoured its development, but a strong north-easterly wind has been more or less destructive to the epidemic.

The disease affects persons of every age and class. There is a period of incubation of about two days, often reduced to a few hours, during which there is a feeling of *malaise* and irritability, or depression. Then during a period of chilliness with occasional rigors, the temperature rapidly rises to 102° F. or 104° F., attended by severe throbbing headache, pain at the back of the eyes, muscular pains, and great nervous depression and lowness of spirits. Running from the eyes and nose has only been observed in a small percentage of cases. The prostration in most cases is complete; nevertheless many people have had it so mildly that they have been able to attend to their business.

During the course of the complaint the usual signs of fever have occurred. As a rule the duration of the fever has been from forty-eight to seventy-two hours, when the temperature has rapidly subsided during a critical profuse perspiration to normal; convalescence has usually occupied six or eight days more. The average duration of uncomplicated cases has been eight days. A relapse, however, has been observed on the sixth or eighth day in such a large percentage of cases as to be almost the rule; the period of the relapse has usually been the time for the onset of complications. The disease is evidently mild if the patient goes to bed as soon as shivering and lumbar pains come on, but it is dangerous if he is exposed to the weather, or otherwise improperly treated. Exposure to cold during the height of the fever or convalescence may entirely change the character of the complaint, bringing about a speedy relapse with some severe complications.

I have observed a rash in a few cases, not always however of the same kind; thus: 1. Several cases had a papular eruption on the head, face, neck, back, chest, and arms, the itching of which was excessive, the eruption lasted about three or four days, and terminated by desquamation around the papules. In two instances the desquamation was rather more general, extending to the hands and feet. 2. A rose coloured rash or spots have been observed. 3. Herpetic eruptions about the face have been common.

Hæmorrhages have not been infrequent; and generally I have observed that the discharge of blood has been the forerunner of a severe attack, usually accompanied by some complication. Among my uncommon cases, four set in with hæmoptysis, one with epistaxis, two with hæmaturia, and several with bloody stools. In cases with hæmoptysis and epistaxis premonitory symptoms preceded the illness by a few hours; but in the cases of hæmaturia the patients observed that, after a rigor, the next urine passed was bloody. In one instance a clot of blood was formed round the utensil of the thickness of a shilling. Bloody stools, along with diarrhoea, have not been uncommon.

Among other complications, I think pneumonia has been the most frequent; but chest symptoms of a catarrhal or bronchitic kind have been common; meningitis, severe neuralgias, otalgia, etc., have been noticed.

There does not appear to have been any definite interval between the attack of different members of the same household. Such intervals have varied from a few hours to a week or two, but in most cases they have followed in rapid succession. Although many in one house have had it, some of the inmates have escaped,

though living in daily contact. I have observed that a few persons who have escaped have either been rheumatic or had a tendency to it.

Dr. Jackson, of Somerby, informs me that he has observed that horses in his neighbourhood have been affected with a cough, with profuse discharge from the nostrils, swollen submaxillary glands, and inability to work, lasting about ten days. The same thing has been observed in other parts of the district. Bronchial attacks in horses have also been common.

The deaths from influenza in my sanitary district have been few in number.

#### Conclusions.

1. That it is a disease *per se*.
2. That it is of miasmatic origin, the specific germ being an unknown bacillus.
3. That it is severely infectious, and but mildly contagious.
4. That it spreads by atmospheric influence, and by development in external media.
5. That its development outside the body is the cause of its being so rapidly and widely epidemic.
6. That one attack is not protective against future attacks; though it has not been under observation long enough to decide this, we may judge from analogy with other diseases of this class that such is the case.
7. The cause of the origin of this world-wide epidemic is unknown, and that, in a given district, the epidemic probably fails from want of numbers, or some change in the atmospheric conditions.

### ON THE QUESTION OF ANÆSTHETICS IN OPERATIONS FOR ADENOID GROWTHS OF THE NASO-PHARYNX.

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SINCE Wilhelm Meyer, of Copenhagen, described adenoid vegetations<sup>1</sup> in the naso-pharynx, and also showed that their removal offered an almost certain relief in many cases of intractable deafness in young children, the attention of aurists and laryngologists has been directed to this matter, and with admirable results. Meyer advised that in removing these vegetations, an assistant should hold the head, which is to be slightly bent forward, and the patient is to be requested to breathe deeply and regularly through the mouth during the operation. The surgeon, standing in front of the patient, introduces the left index finger into the naso-pharyngeal cavity, and with a steel instrument passed through the nostril, the vegetations were to be detached. Such a procedure is naturally followed by free bleeding, and although the operation is not in itself a very painful one, the difficulty in carrying it out on a child aged 7 may be easily imagined.

During the last few years, the operation has been considerably modified and simplified. It is also made more comfortable for the patient, in that most operators now avail themselves of an anæsthetic. Some surgeons employ nitrous oxide, whilst others use ether or chloroform; and as I have had a considerable experience in the administration of anæsthetics in this particular class of case, I should like to offer a few suggestions on this subject. It is, of course, needless for me to urge the advantage of operating under an anæsthetic. Patients of fifteen years and upwards may be found sufficiently resolute to control themselves in such a way as not to embarrass the operator; on the other hand, the manipulations of the surgeon's finger in the naso-pharynx of a child of 10 are not calculated to keep it in good humour, and the sight of a pair of forceps completes the picture, and produces a profound feeling of dismay and often panic.

The advantages of the unconscious condition are so obvious that one need not point them out, but proceed at once to discuss the anæsthetic and method of administration best suited to this particular operation.

Some anæsthetists employ nitrous oxide, but its effects are so transient, and even during the anæsthetic period it is so difficult to keep the patient tranquil, that the operator is rarely able to accomplish his aims to his complete satisfaction.

The method which commends itself most to my mind is as follows: The patient is anæsthetised either with ether (using gas as

<sup>1</sup> *Med.-Chir. Trans.*, 1869.

a preliminary), or, in the case of young children, chloroform alone, or mixed with a small proportion of absolute alcohol. The degree of narcosis depends upon the method the surgeon intends to employ. If the finger is used only, the narcosis need not be so deep as if the forceps is employed. The patient, lying on his back, should have the head drawn over the table as in the method now so frequently employed for staphyloraphy. The advantages of this position are the following: The blood cannot trickle downwards into the larynx, but collects into the roof of the pharynx, which in this position forms, as it were, a cup to receive it, and from which the blood and fragments of adenoid tissue can be easily removed by sponging.

A very important fact for consideration is that in this position we are sure, thanks to the admirable investigations of Dr. Howard, that the air passages are free, and that the epiglottis is raised from the larynx.

The importance of giving the patient every facility for respiring freely cannot be too strongly insisted upon, for the whole of the naso-pharynx is not infrequently plugged with the overgrown pharyngeal tonsil; respiration through the nostril being obstructed, every care is required while he is under the effects of the chloroform.

I would urge the administration of an anæsthetic in these cases on the following grounds: The surgeon can perform the operation more deliberately and with greater thoroughness; the patient is spared much pain and discomfort, and, if unconsciousness is produced by one who is accustomed to this particular class of case, it is as devoid of danger as in any other operation in surgery. I think it necessary to insist on this point, because I feel sure that many laryngologists are more willing to let the patient endure a certain amount of pain than incur undue risk on the score of the imaginary additional dangers which are supposed to complicate anæsthesia in such patients. I can speak with great confidence on this matter, for I have administered chloroform now in a very large number of these cases, and have never had the slightest untoward symptom; and this success I would attribute mainly to the position of the patient during the performance of the operation. Lastly, I cannot avoid the conclusion that in removing adenoid vegetations from the naso-pharynx of a child, it is incumbent on the operator, in the majority of cases, to give the patient the advantage of an anæsthetic.

## MEMORANDA:

### MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

#### CHOLE-PULMONARY FISTULA.

MRS. C., aged 70, had always been healthy, except as follows: In 1882 an attack of jaundice, evidently obstructive, lasted six weeks, was accompanied by hepatic pain, and ended in complete recovery. In 1887 she had a similar illness, but said to be without jaundice; recovery. In January, 1889, all the symptoms of obstructive jaundice developed and remained more or less persistent; pain never great; occasional sickness.

Suddenly, on July 13th, rigor and severe persistent pain in the hepatic region set in and continued next day, preventing sleep and quite upsetting the patient. The pain suddenly ceased on the morning of July 15th, with sudden onset of cough and profuse expectoration. It was on this day I first saw the patient. She was much exhausted, thin, and had the typical symptoms of obstructive jaundice. She was sitting upright, and refused to lie down, because the moment she did so she had distressing intermittent cough and expectoration, which troubled her less when she was upright. The physical signs were those of acute bronchitis of the right lung, much less marked in the left, and at first I took the expectoration to be bronchitic mucus deeply bile-stained, but more careful examination showed it to be bile; it was thickish green-and-yellow fluid, with very slight admixture of air. Temperature normal. Little could be made out by abdominal palpation, as whenever the patient tried to lie down the cough and expectoration increased. There was no marked tenderness in the hepatic region. During the next four days the urine and the conjunctivæ became lighter in colour, the stools continued to be quite clayey; hepatic pain

had quite gone. Patient continued to expectorate the same fluid till the evening of July 18th. By the morning of the 19th this had stopped, and the right lung had become solid. Temperature remained normal. She now gradually became weaker, more distressed, more deeply jaundiced, and there gradually developed in the region of the gall-bladder a swelling, which by the 26th could be palpated as a cyst containing fluid, and which was very tender. The patient gradually sank, and died on July 30th.

A necropsy was not granted, but the history and the symptoms point to chronic inflammation of the gall-bladder, and occlusion of the hepatic and cystic ducts or of the common ducts, followed by a fistulous opening of the gall-bladder into the right lung. While this opening remained patent the symptoms of retention and absorption of bile diminished, although the fæces remained clayey. These symptoms again increased when the opening closed, from the consolidation of the right lung caused by the passage of the bile through it. The history of jaundice seven years previously, and again of hepatic pain and disturbance two years previously, and the absence of hard abdominal tumours seem to negative the idea of cancer.

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#### SUPERFICIAL KERATITIS INDUCED BY ANILINE VIOLET.<sup>1</sup>

SOME time ago, a healthy boy aged about 7 years was brought to me, and the mother gave the following history: On the preceding afternoon the little fellow had been amusing himself by drawing with an aniline blue pencil, and had got his fingers well stained with the violet dye, and from these had got it into the left eye. When she first noticed the child, "the white of the eye (as she put it) was quite purple." But the child made no complaint. Towards evening the eye got very irritable with photophobia and lachrymation. In the morning the purple colour had faded considerably, but the child had great dread of light and pain. On examining the patient, after instillation of cocaine, I found the conjunctiva extremely congested and of a reddish purple colour. After reducing the superficial hyperæmia by pressure, the colour was of a bluish purple. At the inner side below was an area of deeper circumcorneal injection. The pupil was slightly dilated and active. On examining the cornea by oblique illumination, I found six small vesicles on the inner and lower segment, filled apparently with transparent fluid; one of these had burst and left a small superficial ulcer with clean edges. There seemed to be no infiltration of the corneal tissue around, the media was clear, and the fundus normal. I ordered atropine, cocaine drops every three hours, and boracic acid lotion, the eye to be protected from light. Next day all the vesicles had burst and coalesced to form one superficial ulcer, the floor of which was quite transparent and the margin showing no infiltration. There was much less photophobia, and the violet staining of the conjunctiva was much less marked. The atropine was continued and a light compress applied, and in forty-eight hours the ulcer had completely healed. There was a slight haze over that part of the cornea for a day or two, but eventually it became perfectly transparent and full vision returned. The purple stain had entirely disappeared on the fifth day.

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#### ERGOTIN IN ERYSIPELAS.

I HAVE read with interest Dr. Kingsbury's note on the above subject, and though I have never applied ergot externally, I have for some years given it internally in association with perchloride of iron with great success. I was first induced to try it in a case complicated with epistaxis, and the result was so satisfactory, that I have ever since used it. I have employed the liquid extract of the *Pharmacopœia* in combination with tincture of perchloride of iron and glycerine.

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#### PRECOCIOUS MENSTRUATION.

THOUGH the early appearance of the menstrual flow is by no means infrequent in the tropics, it is of interest to note its occasional occurrence in the British Isles, where the usual age varies between 13 and 17 years.

E. D., aged 7 years and 3 months, a native of Portsmouth, was brought to me with a muco-serous vaginal discharge and general *malaise*, backache, and loss of appetite, being, as the mother described it, "out of sorts." A week subsequently the true san-

<sup>1</sup> Read in the Section of Ophthalmology at Leeds.