have done, the operation was performed in 1889 for biliary fistula due to stricture of the common duct, and the patient is at present in excellent health.

I now take the opportunity of suggesting a modification in the operation which will, I believe, make it both more easily and safely performed. The union between the two viscera is effected by means of a small decalcified bone tube shaped like a cotton bobbin, as shown in the diagrams. Only two

Diagram 1.—Drawing of tube for cholecystenterostomy. Measurements: Length, $\frac{1}{2}$ inch; outside diameter of barrel, $\frac{3}{8}$ inch; outside diameter of ends, $\frac{1}{4}$ inch.

Diagram 2.—To show bone bobbin connecting gall bladder to intestine. A continuous suture, including the mucous membrane, unites the margins of the two openings. A continuous suture unites the serous surfaces of the two apposed viscera about $\frac{1}{4}$ inch from the margin of the openings. For convenience the serous suture is applied first around the posterior half circle, then the continuous marginal suture around the posterior half margin, then the tube is introduced and the anterior marginal suture completed and tied, after which the anterior half circle of the serous suture is completed.

continuous sutures—one marginal and one serous—are required, and the operation can be done quickly. The gall bladder can be sutured either to the duodenum or to the colon, preferably to the former, but, if that be impossible, to the latter.

The dilated common duct has on one occasion been opened and connected to the duodenum, so as to establish a fistula between the bowel and the duct. Although the operation must be somewhat difficult to perform, it may prove useful in some exceptional instances where it is found to be impossible to clear the common duct and impracticable to perform cholecystenterostomy, as in cases where the gall bladder atrophied and shrunken and the common duct dilated.

Indications for cholecystenterostomy:

1. In closure of the common duct from stricture where the jaundice is and must be persistent, unless another channel for the bile can be made.

2. In tumour producing obliteration of the lumen of the common duct, thus leading to persistent jaundice, but if the

tumour be made out to be malignant the simpler procedure of cholecystotomy had better be performed.

3. In cases where the gall bladder is distended and it is found impossible or impracticable to clear the common duct of gall stones.

I have avoided many pathological and physiological considerations which might profitably have been touched on and have entered very little into the question of diagnosis, which is perhaps a more important omission, but to deal fully with the whole subject would need a course of lectures rather than a single paper, and, although I have tried to make my remarks as short as the importance of the subject would allow and have avoided giving the details of cases on which my arguments and conclusions are based, I find that I have occupied more time than I intended. For this I offer my sincere apologies and, at the same time, wish to express my thanks for the patient hearing I have received.

VESICULAR ERUPTION ON THE PALATE: A SIGN OF INFLUENZA(?)

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It was in the early part of the year 1891 that I first learned to associate a particular appearance of the soft palate and adjacent parts with the presence of influenza. Whenever the back of the mouth was examined in a good light, the soft palate was found to be more or less completely studded with minute translucent lenticular elevations, somewhat resembling tiny well-boiled grains of sago. They varied in size, being in most cases about 0.5 mm., and hardly ever exceeding 1 mm. in diameter. They gave the idea of small localised distensions of a thin layer of transparent epithelium, and their lens-like appearance was increased by the fact that occasionally a minute blood vessel lying beneath one of them became magnified to quite considerable proportions, although it might be impossible to observe any other part of its course as it entered or left the vesicle on either side. These vesicles were most abundant about the soft palate above the root of the uvula; but in some cases—and these were generally of the more severe type—they occupied a much larger area, being visible over the greater part of the roof of the mouth, but being always most marked and most abundant in the situation first mentioned. The patient was quite unconscious of and apparently unaffected by their existence.

I was, of course, aware that the condition described is to be observed in cases other than those of influenza; nor do I yet venture to suggest that it is pathognomonic of that disease. No one can examine the throats of a large number of persons without occasionally observing the presence of these vesicles, to some extent at all events; but in connection with no other malady had I noticed them to be, not merely so frequently, but constantly, present, and this from the earliest period of the illness and throughout convalescence.

A special opportunity for testing the significance of their correlation with influenza occurred when, in the summer term of the same year (1891), an outbreak of this disease took place at Haileybury College. Abundant vesicles on the soft palate were noted in the case of every boy admitted with undoubted influenza; but such cases are excluded from the present record. Amongst the boys seen daily at the Sick House were a number who reported themselves there on account of trivial accidents or injuries, or complaining of slight and temporary *malaise*, or who came to inquire after the welfare of their friends. The mouth of every such boy was examined; and every boy on whose palate the vesicles were observed was forthwith sent to bed, whether he had any pyrexia or complained of any discomfort—as some did—or not.

Of the 48 boys sent to bed under these circumstances, only 1 failed to develop characteristic symptoms of indubitable influenza within from twelve to twenty hours; while of 17 boys who—though complaining of more or less illness or exhibiting some pyrexia—did not show anything abnormal about the palate, and who were consequently not considered to be beginning influenza, only 5 were subsequently admitted with that disease, but this after an interval of time quite

long enough to allow of their having contracted the malady after their previous visit to the Sick House; and when thus admitted, abundant vesicles were visible in each case. After this time no particular record was kept on this head, although vesicles were noted in every case of influenza, and every boy in whom they were observed was at once sent to bed and treated as an influenza patient, however slight his symptoms appeared at first; nor did any of these patients fail to justify the diagnosis thus made. This sign has now been noted in many hundreds of cases of influenza, comprising persons of both sexes and of every age, and it has often proved of service in settling the question in a case otherwise doubtful.

The vesicles show themselves abundantly in all forms of the malady, though they are, perhaps, apt to be rather more conspicuous in that variety of influenza in which the respiratory passages are specially implicated, than in those forms distinguished by gastro-intestinal irritation, or by "neuralgic" or "rheumatic" symptoms. They persist throughout convalescence, gradually becoming dwindled in numbers, and less conspicuous individually. This fact may possess a special value now that we have so often to deal with a form of the disease considerably modified in the intensity of its more distinctive symptoms, but still apt to leave the patient considerably weakened, and making special precautions desirable during a rather tedious recovery. Quite in accordance with the histories of previous epidemics, influenza is now tending to assume a less overbearing type, doubtless in consequence of successive reimplantations on the same soil, as it were, and is often not readily to be distinguished, in its earlier stages, from what the sufferer is wont to regard as merely a bad "cold" or an ordinary "bilious attack." The detection of these vesicles on the palate may hence prove of real service, both for diagnosis and by giving a valuable hint as to the true *fons et origo* of those cases of prolonged and seemingly disproportionate debility after apparently slight ailments which are in so many instances nothing more nor less than a heritage from the degenerating form of influenza. Many cases might be quoted in illustration, but the following will suffice as an instance in which the hint derived from an inspection of the palate proved of some practical value.

A. H., a young unmarried woman, was sent into hospital as a case of severe gastric ulcer, for which she had been under treatment for more than a week, with a history of hæmatemesis. On admission she complained of pain, described as being especially severe in the epigastrium, thence striking through to a corresponding point in the back, and always aggravated by food; of vomiting, preceded by pain and induced by food; and of great and increasing debility. The temperature was slightly subnormal. Inspection revealed the soft palate still plentifully studded with the minute vesicular elevations already described; and further inquiries showed that about a fortnight before she had been seized with sudden shivering and general pains; that a slight epistaxis (no uncommon symptom in many cases of influenza) had preceded by a few hours the single instance of hæmatemesis; the epigastric pain appeared to be but a slight topical exaggeration of a general girdle pain, which was repeated serially throughout the length of the trunk, and which was much aggravated by pressure along the tender spine; there were typical *points douloureux* in the course of each intercostal nerve, and, beyond a double mitral murmur (accounted for by an attack of acute rheumatism twelve years previously), no evidence of organic disease was made out. The case was diagnosed as one of post-influenzal neurasthenia; the patient was placed on full diet, and was ordered a tonic mixture with a liniment of belladonna and bromide of potassium, to be rubbed twice daily into the spine. In ten days she was discharged well.

More than two years' continued experience of the practical usefulness of this sign has prompted me to publish these observations in the hope that they may prove of service to others.

MEDICAL MEN IN THE SPANISH SENATE.—At the elections for the Spanish Senate which have just taken place, the following members of the medical profession were returned: Professor Basilio Sanmartin (for the Royal Academy of Medicine); Professor Calleja (for the University of Zaragoza); Professor Gimeno Cabañas (for the University of Valencia); Professor Maximino Teijeiro (for the University of Santiago); and Professor Juan Magaz (for the University of Barcelona). In addition to these academic Senators, Dr. Martinez Pacheco has been elected by the city of Santander; Dr. Justo Martinez, by Orense; Dr. Fernandez-Caro, by Alicante; and Dr. Pertierra, by Cienfuegos. Thus, with Drs. Alonso Rubio and Calvo, who are life-Senators, the medical profession is represented in the Upper Chamber of the Spanish Legislature by eleven members.

ON THE PRODUCTION OF ARTIFICIAL ECDYSIS IN THE FILARIA SANGUINIS HOMINIS NOCTURNA, AND THE SIGNIFICANCE OF THE SHEATH AND CEPHALIC ARMATURE OF THIS PARASITE.

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IN the present state of pathology any new fact connected with parasites—particularly with blood parasites—deserves attention, even though for the time being it may seem devoid of practical bearing. This is my excuse for placing on record the following curious observations.

Last year M. A. J. Zune, in an interesting *Mémoire sur la Filariose*, made the statement that whilst some specimens of the common blood worm, *filaria s. h. nocturna*, are enclosed in a sheath, as hitherto generally believed, others, on the contrary, are not so provided, but swim about naked in the blood. As M. Zune's observations had evidently been made with great care, they led me to suspect that, in common with many others, I possibly had made a blunder in describing the "sheath" as an invariable feature of *filaria nocturna*. Accordingly I took an early opportunity to reinvestigate this point. After a great many observations I assured myself that M. Zune was wrong, and that the accepted description was correct, viz., that in newly-drawn blood the filaria is invariably enclosed in a loose sheath. I therefore concluded that M. Zune had unwittingly subjected his preparations to some as yet unknown conditions which had deprived the filariæ in his slides of their sheaths, and I set about trying to reproduce and to find out what these conditions were.

In the course of my experiments I found in a particular batch of filaria-charged slides which I had placed overnight in frosty weather near a window, that many of the filariæ, when I came to examine them next day, had quitted their sheaths. I could see the naked worms moving about in the blood, and I could also see, lying at a short distance from many of them, the sheaths which they had quitted empty and collapsed, and more or less crumpled up like so many discarded garments (Fig. 1). Doubtless the conditions which in

Fig. 1.

my slides had caused this ecdysis were the same as those which had produced M. Zune's sheathless filariæ. I remarked in the slides that the hæmoglobin had left the red blood corpuscles, and had become diffused through the plasma, which in consequence had become thick and viscid. I could see also that some of the filariæ which had not yet left their sheaths were either vigorously at work endeavouring to do so, retiring towards the tail end of their sheaths, and anon charging and butting the head end in frantic effort to escape; whilst others again, having succeeded in effecting an opening, were wriggling about and trying to squeeze their bodies through the rent they had made in the sheath (Fig. 2), and