

PURULENT OPHTHALMIA AND THE TREATMENT BY ARGYROL.¹

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THE remarks now offered to you are founded on 50 cases of purulent ophthalmia which were brought to Addenbrooke's Hospital during a period of five years before 1900. Of these 50 cases 37 were cured, either entirely or without any serious damage. In five cases both eyes were hopelessly lost, and in three of them the sloughing of the cornea was so extensive as to allow of the loss of both crystalline lenses. In the remaining eight there was serious impairment of vision of one or both eyes resulting in corneal opacities, partial staphyloma, pyramidal cataracts, and other lesions. Two of the patients affected were twins, and there was one instance of the disease happening twice in the same family. Six died during or shortly after treatment for syphilis, meningitis, and other maladies. One case of arthritis occurred which possibly was of the nature of so-called gonorrhœal rheumatism, but the gonococcus was not looked for in the fluid effusions of the joint. In one case a purulent discharge from the nose made one wonder that this event did not happen more frequently, but the nasal passages are very rarely infected. Several cases of syphilitic "snuffles" were noted. With one exception both eyes were affected, but in several one eye was infected later than the other, and in these probably the contagious matter was introduced, not at birth but later by fingers or towels. It usually happens that the infant is brought to the hospital by a neighbour, the mother being still in bed or not yet strong enough for the journey. In 31 cases no medical man was in attendance during the confinement; several children were illegitimate. With regard to the nurses employed, one, Nurse E., had been in attendance on the mothers of eight infants, Nurse C. on five, Nurse M. on four, but sometimes a neighbour gave help at the labour and neither nurse nor medical man was present.

The amount of damage done in the cases with partial recovery is not easy to estimate, and the ultimate result is very difficult to forecast because an apparently slight lesion may cause great impairment of vision and an apparently large mischief may clear away wonderfully. An important consideration to bear in mind is that the cornea has its own rate of growth and is peculiar in that regard, attaining its full surface area at five years old. So that we look through the same sized windows at five as we do at 40 years. The cheerful point is that clear cornea, except in perforated cases, *grows* while the surface area of the opacity or scar diminishes.

It is well to understand that very serious consequences may follow a purulent conjunctivitis which is not gonorrhœal. Not long ago I saw an example in an infant with one eye only affected in an otherwise healthy female child. There was a resulting opacity, now nearly clear, but both nystagmus and slight squint have appeared, so that though the cornea clears the case has still a serious aspect. About the mode of contagion: of course, usually the poison was obtained from the mother's passages during the birth of the child. Several of the cases had been bathed with milk, most often the mother's milk. In this connexion I may mention the disgusting practice, among alien populations about Smithfield, of bathing the child's eyes with the mother's urine. The mode of onset also suggested that some cases had been inoculated later than birth.

It is curious to note that in gonorrhœal ophthalmia of adults the right eye is more often affected than the left, no doubt from the more free use of the right hand in self-inoculation; also that a large number of cases give a history of a pre-existing blepharitis as pointed out by Mr. E. Nettleship, which would make the tendency to a filthy rubbing of the eyelids and thus render inoculation more probable. Some are of opinion that the blepharitis renders the conjunctiva more vulnerable to the gonococcus poison. Certainly the conjunctiva defends itself in an admirable way against all microbes except a very few and suppuration cannot be established easily in the conjunctival sac so as to be kept up without these special cocci. This is well seen in

the old cases of pannus which were sometimes treated with jequirity seeds to excite suppuration, for it was found very difficult without gonorrhœal pus to excite purulent inflammation sufficient to cure the pannus, and the gonorrhœal pus was used occasionally with good success and permanent cure as to the pannus and trachoma.

But the bacteriology of this subject is apart from the purpose of this paper. A word as to the prevention of the disease and of its terrible results. 1. In order to get the cases earlier papers of warning have been printed for me and during the past 15 years have been given to suitable distributors, relieving officers, and others. 2. It was useless to appeal to those in charge of the charity which employs the nurses in the poor districts. So soon as it was discovered that this disorder often depended upon "something improper" the ladies would not stir in the affair. To a few nurses I have given bottles of drops to use in suitable cases of newborn children, especially when the mothers have vaginal discharge, but I have no control over these nurses and no supervision whatever over cases in which there is neither medical man nor nurse to attend at the labour. Of this I am assured, that if nurses were armed with argyrol drops the disease would be greatly checked.

Knowledge comes but wisdom lingers. We have known of this contagious malady for many years. The discovery of the gonococcus has not done much to diminish its ravages. Our knowledge is greater but we are not yet wise enough to stamp out the disease and it appears to me a matter for sad reflection that this diabolical microbic malady is as prevalent in this district as it was 20 years ago. In 1885 Sir William Bowman stated before the Local Government Board that 30 per cent. of the inmates of the blind asylums had lost their sight in this way and there were at least 7000 persons in the United Kingdom blind from this cause and to these an equal number might be added to represent those suffering from the effects of the malady in less severe forms.

These cases on which the foregoing remarks are founded were observed before the use of argyrol. A few words now as to the use of this remedy which I have tried in a large number of cases. It is a silver salt; as such it is used in cases when nitrate of silver would otherwise be suitably applied. The solution as standardised at the factory in Philadelphia is diluted to make a 50 per cent. or 25 per cent. for drops of usual strengths. It does not cause pain, it is not followed by irritation of the lids, and the staining of chocolate-brown washes off the lids or cheek without permanent mark and weak corrosive sublimate takes the stain off quickly. It has its greatest value in checking suppuration from the conjunctiva and in some most unpromising cases it has proved to be the best remedy.

At the extremes of life in infancy and old age, with the eye during growth or the eye during degeneration, the treatment of disorders needs watchfulness and special care. It is most useful in purulent ophthalmia and while not wishing to discredit old and tried remedies I must speak well of argyrol. Frequent ablutions of the conjunctival sacs and the careful use of the irrigation-can and swabs by a nurse of experience are as much needed with argyrol as with the old drops of protargol or silver nitrate.

In the hospital during the past 12 months almost the only case of conjunctival suppuration which has not been successfully treated with argyrol is the following. The patient was a female child, aged six years, with profuse suppuration filling the conjunctival sacs, causing dusky red swelling of the lids and threatening destruction of the cornea of both eyes. Argyrol drops, nitrate of silver, and other remedies all failed. Thick polypus like granulations lined the lids. The child had a sore-throat and both in the exudations from the throat and in the pus from the conjunctiva were found the Klebs-Löffler bacilli. The pus formation had continued during ten days, no remedy making any impression. As soon as 12,000 units of antidiphtheritic serum were injected this treatment cleared the eyes of discharges and no further injection of serum was needed. Except that an abscess formed in the neck there was a wonderfully complete recovery in a few days both of the eyes and health generally. Slight nebulous cornea alone remained. It was interesting to note in this case that there was no response to the remedies used until the antitoxin had been injected. Another point of interest is that there was during ten days thick pus discharged from the conjunctival linings and not the usual membranous exudation of diphtheria.

Next, to relate briefly the case of a woman, over 70 years of age, who had lupus of the face for 30 years. The end of

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the nose and portions of the face were destroyed and active tuberculous disease affecting both eyes had caused a hypopyon ulcer in one eye. Argyrol drops used every eight hours proved successful in causing complete absorption of the pus in the anterior chamber, relief from pain, and as much improvement in the general condition of the eye as could be expected. It is well to note in this place that the argyrol drops are carried by the tears into the nose and in this patient the nostrils affected by the lupus would have shown any results of irritation if such had chanced, but though the raw surfaces of the ulcerated nostrils were stained by the fluid it was rather useful than otherwise as an application to the lupus sores.

Like an embarrassed sportsman who puts up too many hares I fear to give you too many details and in giving you these remarks, leaving out much to make my paper suggestive rather than exhaustive, there are plenty of gaps left for others to observe and to report upon. You will see that argyrol puts in a great claim for your favourable regard both in the treatment and prevention of purulent ophthalmia.

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IS MAN POLTOPHAGIC OR PSOMOPHAGIC?

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PART II.¹—THE PRACTICE OF POLTOPHAGY.

IN Part I. I stated a case for poltophagy *versus* psomophagy in man, relying for my main argument on the fact that structure is crystallised function. When using such a point as this it is almost irresistible not to carry it further into the psychical equipment for the choice of foods and the indications necessary to determine its quality and quantity. To wild animals it would seem to be as necessary to be able to adjust their food to their needs as that of obtaining water or oxygen, for the penalty of inefficiency is generally death. What conditions have arisen, it may be asked, that the existence of such a faculty should even be questioned in man? What compensation has civilisation provided in its place? Mr. Horace Fletcher put this point to me with admirable clearness and brevity in 1901 by telling me "that if one insalivated and masticated one's food and ate what one liked the rest took care of itself." Three years' experience has led me to have a growing conviction of the substantial truth of Mr Fletcher's contention. This apparently simple but really difficult proposition is the one that this paper mainly deals with, because it is an absolutely essential part of any intelligent appreciation of the phenomena observed during the practice of poltophagy. To express this psychical equipment in the case of animals one makes use of that much-abused term "instinct"; in the case of man one speaks of appetite and taste. Appetite has become a much less vague term in consequence of the labours of Pawlow. It is to be hoped that taste will yield up its secrets to the determined assaults of Dr. Kiesow of Turin.

I have first dealt with appetite, then taste with points dealing with foods, afterwards I have briefly considered the acquirement of the habit of poltophagy, also changes in the faeces and the large intestine.

1. *Appetite*.—The psychical element in digestion has been recently brought into scientific prominence by the researches of Pawlow who says: "It is only by the establishment of this passionate desire for eating that unerring and untiring nature has linked the seeking and finding of food with the commencement of the work of digestion. That this factor, which we have now so carefully analysed, stands in closest relation with a phenomenon of daily life—namely, appetite—may easily be predicted. That agency which is so important to life and so full of mystery to science becomes at length incorporated into flesh and blood, transformed from a subjective sensation into a concrete factor of the physiological laboratory. We are justified in saying that appetite is the first and mightiest exciter of the secretory nerves of the stomach."

It would be impossible to have any conception of the nature of poltophagy without looking on appetite as the most

essential part of the phenomena presented by its practice. It is important to tell those commencing the practice that they should on no account eat without appetite and that they should cease as soon as appetite ceases. It will be useful to consider appetite from the following points of view:—

(a) *Variations in appetite*.—Appetite varies from a well-defined and decided preference for certain foods to an ill-defined general hunger, or the condition known as a poor appetite. Speaking generally, an individual is at his best with a decided appetite for one or more of the groups of foods described below.

(b) *The cessation of appetite*.—The end-point of a meal is very decided and well marked in poltophagy. It is quite exceptional to find that undecided end-point so well shown at the end of dinner, during the dessert stage with its sweets, fruit, biscuits, &c.

(c) *The frequency of meals*.—At variable periods of time after commencing poltophagy it may be said that in many people leading an ordinary sedentary life there is only one good appetite in the day and consequently only one good meal, somewhere about mid-day. The second appetite, if any, is from five to eight in the evening. It is most important not to suggest to patients that their appetite is going to be immediately changed; that, for instance, they will not require breakfast. It is usually very much better for them to indulge their appetite. One patient did not omit breakfast for about two years after starting poltophagy, another was nearly a year. Abnormal frequency of meals soon ceases if patience is exercised. I recall one patient who commenced with five or six meals a day; after six weeks' treatment he had only one.

(d) *The absence of appetite*.—In the absence of appetite a patient must be encouraged not to eat even for two or three days. Good appetite and good digestion are generally the reward. In one case where there was an absence of appetite for periods of two, three, and four days with abstinence from food there was decided hyperchlorydia at the same time.

(e) *Appetite and mastication*.—The question has often occurred to me whether in those commencing the practice the unaccustomed use of the muscles might not be a potent factor in producing the immediate diminution of appetite almost invariably noted.

(f) *Hunger*.—An interesting feature of the practice is that there is none of that uncomfortable faintness when a meal is passed over. On occasions when food is not obtainable for two or more hours over the accustomed time the appetite remains but without any discomfort; it might be described as postponed.

2. *Of taste and preferences for foods*.—An attractive feature of poltophagy is the idea that the food preferred (the food which gives the greatest pleasure) is the most suitable. This implies a trust in the indications of taste and appetite even in those who are in process of regeneration. This idea is at first somewhat difficult to grasp, but it must be understood that a certain amount of interpretation of preference is necessary. For instance, a great fondness for the juice of oranges or grapes was replaced in its turn by a wish for salads. This was interpreted to show a want for vegetable salts. A solution of these salts was prepared by boiling finely divided vegetables in milk and was found to replace preferences for fruit and salad in many other cases besides the one in point. It will be convenient to deal with the question of preferences under the following heads.

(a) *Vegetable salts*.—Fruit, vegetables, &c., are called for in most cases. It is important to take the greatest care in obtaining the purest food and that it should be cooked in the best possible way.

(b) *Fats*.—It is very remarkable that without exception all cases take a large amount of fat (about 100 to 150 grammes a day). This amount was taken by a patient who was losing two kilogrammes a week in weight. When this appetite shows itself in a case it is better to provide, as well as the best butter, freshly separated cream, the purest form in which fat can be obtained. The quantity eaten is by no means constant, varying from day to day, while some days hardly any at all is required.

(c) *Starches, dextrins, sugars*.—It is noticed in some cases that the appetite for starch is replaced by a preference for dextrins, prepared either by frying bread or potatoes in butter or oil, or else thoroughly toasting bread. Dextrins, it must be remembered, are pepsinogens (Schiff). This may account for the popularity of the many patent foods now manufactured by the treatment of cereals by superheated

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