REMARKS
ON THE
PATHOGENIC ACTION
OF THE
IODURET OF POTASSIUM.

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The extraordinary results obtained by the use of the ioduret of potassium in the treatment of syphilis, and the general employment of this remedy by the great proportion of physicians who attend specially to venereal diseases, have induced me to point out some of those effects produced by it, which may become causes of error in the course of the treatment, or constitute real complications, which may modify or arrest the cure.

I have already made known the circumstances in which the ioduret of potassium ought to be employed—that is to say, at what period of the syphilitic disease it is most likely to be serviceable, and of which it is in a sort the specific. I have also stated the doses and pharmaceutical preparations to which the preference should be given. In order to complete the history of this powerful therapeutic agent, I am now about to speak of its pathogenic action. In the first place, let me say that the ioduret of potassium has a very marked action on the secretions in general, which it excites and increases greatly. Its effects on the skin, mucous membranes, and kidneys, are very remarkable; the circulation and the blood itself are sometimes influenced by it, as also the nervous and the muscular systems; but there exists in the production of these phenomena a certain order of frequency, in accordance with which we shall now study them. At the same time, I must observe that, although what I am about to advance is drawn from a great number of observations, I yet give it with a certain degree of reserve, expecting from time, and the experience of other practitioners, either the confirmation of my remarks, or, on the other hand, advantageous modifications thereof.

Action on the Skin.—The skin is incontestably one of the tissues the most easily influenced by the ioduret of potassium. Nothing is more common, in fact, than to see patients under its influence affected with different eruptions, and more especially with eruptions of the psudracious form, somewhat resembling the pustules of acne, with this difference, that they are not confined to the parts habitually affected with acne; thus they are found not only on the face and shoulders, but on every part of the body, without exception.

There is scarcely any form of acute eruption of the skin which the ioduret of potassium cannot induce, according to the predisposition of the patient. In the one case we may have an eczema, in the other herpes, while in others it may cause simple erythema. I have recently had under my care at the hospital two patients, in whom, at two different periods, there appeared an eruption of papulous erythema on some parts, of erythema nodosum on others, and, in a patient affected with cancer of the face, to whom the ioduret of potassium was given in rather large doses, it on several occasions caused an eruption of impetigo on the hairy scalp, and of a rupia, offering the cha-

acters of a cachectic rupia, on the legs and forearms—symptoms which disappeared as soon as the remedy was omitted, and showed themselves again when its use was resumed. I have seen the ioduret of potassium several times give rise to a genuine purpura hæmorrhagica. I have seen it produce on three several occasions, after a fortnight's use, a genuine spotted disease on the legs of a gentleman, for whom I prescribed it; and in the case of a lady, for whom, with the sanction of Professor Cruveilhier, I ordered it, for the removal of very serious tertiary symptoms of syphilis, it caused, towards the termination of the cure, a petechial eruption on the lower limbs, unattended, however, with danger. Some patients have experienced only a feeling of heat and pricking of the skin, attended at times with more or less pruritus. The importance of knowing these different effects of the ioduret of potassium on the skin will be readily acknowledged, in order that they may not be confounded with the symptoms for the removal of which the remedy is given, and especially in order that it may be abandoned at once in those who have analogous diseases, or such predisposition that the ioduret of potassium may either exasperate or develop these affections.

Action on the Digestive Functions.—I have ascertained, and the greater number of those who have experimented with the ioduret of potassium agree with me on this point, that the functions of the digestive apparatus are increased in activity, and are better performed; the individuals get an appetite, and *embonpoint* is an ordinary consequence of its use.

Nevertheless, there are circumstances in which this medicine may produce injurious effects on the digestive canal. One of the most remarkable and most constant is a pain situated in the great cul-de-sac of the stomach, and which, by the manner in which the patients complain of it, might be mistaken at first for pleurodynia of the left hypochondrium. This pain may be sometimes very severe, without there being any increase of thirst, disorder of the appetite, coating of the tongue, or any reaction of the circulation. Pressure does not increase the pain; the function of digestion has not any influence on it; it seems to be due entirely to a gastralgia. In some persons the appetite, which at first is increased solely to a satisfactory condition, becomes excessive, exaggerated, and absolutely morbid. We have had patients in the hospital that double rations did not satisfy. In a few cases the use of the ioduret of potassium is followed by phlegmasia either of the stomach alone, or of the entire intestinal canal, attended with vomiting and diarrhoea, and, in fact, all the phenomena of poisoning. Nevertheless, the most frequent result of the action of this agent on the intestinal mucous membrane is the production of a sero-mucous flux, and we shall find that it has an analogous effect on the other mucous membranes.

Ptyalism.—While speaking of the pathogenic action of the ioduret of potassium on the alimentary canal, I must mention a phenomenon I have often met with—I mean a peculiar salivation caused by this medicine. In many persons it causes a real ptyalism, which may be as great and as severe as the most marked mercurial ptyalism. It is important to be aware of this peculiar phenomenon, in order that it may not be

confounded with an analogous one caused by mercury, especially in those cases where the two remedies are administered conjointly. It will be sufficient to point out the characters proper to the ptyalism from iodine, without mentioning those caused by mercury, in order that they may be distinguished from each other.

The salivation to which the ioduret of potassium gives rise very much resembles that of pregnant women. In these cases the saliva has very little viscosity; it seems to come not only from the cavity of the mouth, but to be also the product of a kind of regurgitation. The mucous membrane of the mouth may be rather irritated, and œdematous, but there are not any signs of inflammation, as in mercurial stomatitis, nor is there observed any tendency to the ulceration peculiar to the latter. In the majority of cases even it is impossible to discover any appreciable alteration of tissue. The salivary glands are not the seat of any tumefaction, nor is there any peculiar odor from the breath. The patients complain that the saliva has a saltish taste, resembling that of the ioduret of potassium.

Action on the Kidneys.—The secretion of urine is often increased by the ioduret of potassium, the augmentation under certain circumstances constituting a true pathological condition; I have had a patient in the venereal hospital affected with diuresis from the use of this remedy. Each time it was administered, the emission of urine was materially increased; the patient has passed from forty to fifty quarts in the course of the twenty-four hours, drinking in the same proportion. Each time that the ioduret of potassium was suspended, this accidental supersecretion ceased, but it was reproduced as soon as its use was resumed. In this case, as in those where the urinary secretion was infinitely less, and in those where it was not in the least augmented, it did not present any notable change, with the exception that it was found to contain the ioduret of potassium.

Action on the Circulation.—The circulatory action has not appeared to be sensibly influenced by the ioduret of potassium; in general the pulse has been neither accelerated nor rendered slower. Under some circumstances, we have had reason to believe in a peculiar action on the circulation, because certain persons who labored under febrile excitement previous to the administration of the remedy, have had the febrile symptoms lessened or removed while it was used; in these cases I believe the modification of the circulation was not caused by the ioduret of potassium, but depended solely on the removal of the cause, of which the fever was only a symptom. In some persons, however, as a rare exception to the rule I have just laid down, the circulation has been increased in activity; but here again it is less by the direct action of the medicine on the circulation, than by the irritation it has produced in the alimentary canal, whether it has originated a gastro-enteritis, or that it has been given to persons whose digestive apparatus was already in a disordered condition.

While noticing the action of the ioduret of potassium on the blood itself, it has appeared to us, as was mentioned when speaking of its effects on the skin, that it renders the blood less plastic, and thus gives rise to hæmorrhages. We have seen nasal and pul-

monary hæmorrhages, and even sometimes hæmorrhage from the intestines, during the administration of the ioduret of potassium in persons whose blood was already impoverished, either from chlorosis, scurvy, or scrofula, or from an old taint of syphilis in the constitution which has injured it seriously.

Action on the Conjunctiva.—Following the phenomena just mentioned is one which is often met with, and which may cause much alarm to those medical men who are not in the habit of using the remedy in question. This phenomenon is its action on the conjunctiva.

The conjunctiva may be affected alone, or else together with the mucous membrane of the nasal fossæ or of the bronchia. The conjunctiva of one or both eyes is often seen to be affected in persons who are under the influence of the ioduret of potassium. The attack commences by a more or less general and more or less rapid vascular injection, to which is speedily added a tumefaction of the mucous membrane, and an infiltration, generally well marked, of the sub-mucous cellular tissue, which give rise to considerable chemosis of the eye and œdema of the eyelids. This species of ophthalmia, which may be named the *catarrho-œdematous*, presents the peculiar indication of the general effects of the ioduret of potassium on the mucous membranes—that is to say, the secretion is increased without any tendency, or very little, to suppuration. It has appeared to me, that in the great majority of cases these symptoms showed themselves when the use of the remedy was commenced, rather than when it had been administered a long while. I may add, that when it has once occurred, it is rare to see it attack the party a second or third time. It is very important to be aware of this effect of the ioduret of potassium on the eyes, because the peculiar ophthalmia it causes may be mistaken for a symptom of syphilis, more especially for gonorrhœal ophthalmia, with which it has some analogy.

Action on the Respiration.—I have noticed under certain circumstances some very remarkable effects of the ioduret of potassium on the respiratory apparatus. In a certain number of individuals from the first week of medication, and in others only after a much longer period, a peculiar coryza is noticed, which may be mistaken for a simple coryza, or for an exacerbation of the syphilitic symptoms affecting the nasal fossæ. In the particular cases of the action of the ioduret of potassium on the Schneiderian membrane, there happen the symptoms of the simple coryza, the mucous secretion being considerably increased, but with this peculiarity, that the discharge has much less viscosity, and has not any tendency to pass to suppuration. This rheum caused by the ioduret, to use a common expression, does not ripen, and even if, previously to the use of the remedy, there existed a purulent secretion from the nasal fossæ, unless it depended on caries of the bones, it will soon diminish under its influence, and sometimes disappear.

Action on the Bronchia.—In some cases, but not so numerous as the preceding, the effects just described as occurring on the pituitary membrane, take place with the bronchial. The symptoms of a peculiar kind of bronchitis then show themselves; the cough is very slight, and there is rarely present symp-

tomatic fever, but the patients generally experience a well marked difficulty of breathing, and bring up a large quantity of expectoration, similar to that observed in the first period of simple bronchitis. There is also this particular attendant circumstance, that the expectoration ceases as it began—that is to say, without passing to the purulent state. The stethoscopic phenomena, and those furnished by percussion, are the same, or nearly so, as in simple bronchitis.

Action on the Nervous System.—A less frequent effect, but still one requiring to be noticed, as occurring among persons to whom the ioduret of potassium has been administered, is a degree of cerebral excitement which has occasionally shown itself; symptoms of slight congestion, which have given rise to a condition analogous to that of the intoxication produced by alcoholic drinks. It has been already noticed by authors, and has received the name of the iodic intoxication. In these cases, we have also observed in some patients, a certain influence of the medicine on the agents of locomotion; some have been affected with spasms, and even a degree of subultus tendinum. Dr. Guillon told me that a professional friend of his thought he had observed a double amaurosis in a man while under the influence of the ioduret of potassium. The man's wife was similarly affected. Statements of this kind, however, require a severe analysis before they are received.

Action on the Genito-urinary Organs.—The action of the ioduret of potassium, it has appeared to me, is also directed upon the mucous membrane of the urethra. I have, in some cases, had reason to attribute to this medicine the return of ill-cured gonorrhœas, or the exasperation of one already existing, so much so that if a patient be laboring under blenorhagia, more especially if it be at all approaching the acute state, I consider it a counter-indication to the use of the remedy. Still there may be certain cases of blenorrhœa in which advantage may be derived from the use of the ioduret of potassium.

The remarks that have just been made respecting the action of this remedy on the urethra are equally applicable to the mucous membrane of the vagina and uterus. In some patients, laboring under uterine or utero-vaginal catarrh, and treated with the ioduret of potassium, I have seen the morbid secretion very considerably increased; it follows, therefore, that the existence of an acute utero-vaginal catarrh, or of one approaching the acute state, equally constitutes a counter-indication to its use.

If I were now to state the proportion in which the various maladies of which I have spoken occur, relative to the number of patients to whom I have administered this potent therapeutic agent, I should say that it is certainly a very small one; and I may add, that hundreds of patients take the ioduret, and are successfully treated by its use, without the occurrence of any of the pathological conditions I have described. I should also mention that there is not one of these maladies, even of those the most severe in appearance, which continues more than a week after the suspension of the medicine, or the modification of the dose. I have, hitherto, only met with five or six patients with whom I have been obliged, ultimately, to relinquish the medicine, on account of the constant pathogenic effects which it produces; in a great many, however,

I have been induced to modify the doses, or to suspend the use of the medicine for a time, on account of the occurrence of the effects to which I have just drawn the attention of practitioners, and which, like those caused by mercury, ought to serve as guides. In the employment of the ioduret of potassium we should adopt this common principle—to give the medicine in doses sufficient to modify and cure the complaint, without producing any of the annoying effects previously mentioned.

Besides, my experience enables me to establish as a positive practical fact that the morbid phenomena, which depend purely and solely on the action of the ioduret of potassium, do not require for their removal in a few days any other treatment than the suspension of the medicine, or the diminution of the doses in which it is administered. The pathogenic effects of this remedy are less permanent and persistent than those produced by mercury; they cease almost as soon as the cause that produced them is removed.

Although this sketch is doubtlessly very incomplete, it will serve, I trust, to point out several counter-indications, to which, hitherto, sufficient attention has not been paid. It will also show that in some circumstances, before administering the ioduret of potassium, certain complications must be removed, and certain predispositions combated, which might, otherwise, have the effect of preventing the proper action of the remedy. Besides, a thorough knowledge of the therapeutic and pathogenic action of the ioduret of potassium will encourage timid practitioners to employ it in proper and sufficiently large doses, while it will serve to restrain those who unfortunately are inclined to use it in excessive quantities.

It is by proceeding in this manner that we are enabled to ascertain the doses in which the ioduret of potassium ought to be given. In the majority of cases it may be administered in the dose of a scruple and a half in the course of the day, that quantity being given at thrice, and, generally speaking, the same dose must be given for five or six days to judge of the effects produced. If the symptoms do not improve, and none of the affections that have been mentioned show themselves, each dose may be increased ten grains, making three scruples in the day, to be continued for five or six days, and then, according to the effects produced, the dose may be increased in the same proportion, or remain in *statu quo*, or, if requisite, diminished. My experience being now very extensive on this point, I may say that it is rarely necessary to exceed three scruples in the day; that six scruples should be the maximum, and that it is exceedingly rare to be obliged to give less than a scruple and a half in the twenty-four hours.

I use the following syrup freely in private practice:—

Syrup of sarza, 500 scruples;

Ioduret of potassium, 16 scruples. Mix.

Of this the dose is at first three teaspoonsful in the day, then six, nine, and twelve. The medium dose is six spoonsful three times a day.

When it is requisite to administer mercury at the same time with the ioduret of potassium, I prefer giving them separately, either in the form of pill or syrup. In the first place, because the prescription may require to be frequently changed; one of the two drugs requiring, perhaps, to be omitted, or the

dose lessened or increased, thus causing the loss of the medicines previously prepared; and, also, because patients do not bear so well the compounds of the ioduret of mercury and potassium as they do these iodurets administered separately, with intervals of one or two hours between each.

The remarks I have just made respecting the ioduret of potassium are applicable, in a great measure, to the ioduret of iron, a powerful remedy, which I have employed for many years, and from which I have derived great advantage. I should give it the preference to the ioduret of potassium, if its chemical composition were in general more regular and fixed. But I must say that at present, in the great majority of cases tried upon a very large scale, the ioduret of potassium has furnished me with the most favorable results. If the ioduret of iron ought to be preferred in some cases, although it is much less easily borne by patients, it is in those where there are scorbutic complications in anemic individuals—in those who are commonly said to have poor blood—in those cases, in fact, where chalybeates are indicated—and in those where the ioduret of potassium is followed by well-marked anti-plastic effects.—*Bul. de Thera.*, Sept.

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In some recent articles we thought it expedient to direct attention to certain acts of the medical corporations not eminently characterised by wisdom or consistency. The truth is that, whether we look to the original constitution of these corporations, to the motives by which they have been invariably influenced, or to the long series of selfish acts which have estranged from them the respect and regard of the profession—looking, we say, at all these circumstances, it is impossible to arrive at any other conclusion than that the corporations are unworthy to be trusted any longer with the regulation of medical education or the government of a larger and influential portion of the community.

Impressed, as we ourselves are, with this feeling, and knowing that it pervades a very great majority of our medical brethren in the United Kingdom, we look with the utmost anxiety to the forthcoming bill of Sir James Graham. Shall we receive at the hands of her Majesty's Government a complete and satisfactory measure of reform—a measure which, while it heals existing evils, shall consolidate the profession into an united and homogeneous whole? or shall we have a mere attempt to patch up the rotten fabric of corporate monopoly, and continue ill-gotten and ill-used power in the hands of those who have too long wielded it with little credit to themselves and still less benefit to the public or the profession?

The interests at stake in the question which is about to be resolved by Sir James Graham are of too

vital importance to admit of concealment, hesitation, or indifference. This is no time to cast a cloak over the faults of our adversaries—to waver between a choice of parties, or to look on with apathy when the struggle for independence is at hand. We tell the general practitioners of the United Kingdom that they must bestir themselves, and that instantly, unless they are prepared to sacrifice the efforts which they have hitherto made, and rest content with the degraded position which they now occupy. The corporations, having obtained the ear of Sir James Graham, are about to lay hold of his nose also, and much do we apprehend that great and grievous mischief will ensue, unless the profession come to the rescue and save the Home Secretary from the hands of those whom none can touch and remain clean.

The question is simply this—Is the forthcoming measure of medical reform to be enacted for the benefit of the profession, or for the benefit of the corporations? Are we to have some legerdemain attempt to remodel the Pall-mall and Lincoln's-inn institutions—a whitewashing of corporate platters—a crutch to support a couple of enfeebled frames, crippled by time and corrupt practices?—or, on the other hand, are we to expect a large and comprehensive law, applicable to the many, not to the few, and bringing with it contentment and joy, not disappointment and sorrow?

We fear that Sir James Graham has resolved on adopting the former plan, and that he is about to sacrifice the profession to the corporations. He has, at all events, announced an intention of granting new charters to the Colleges of Physicians and Surgeons previous to the introduction into Parliament of his promised bill on medical reform.

It is to save the Right Hon. Secretary for the Home Department from this absurdity, and ourselves from the consequences which must inevitably result from it, that we would call on all true friends of medical reform to resist this unwise, unstatesmanlike, and untoward proposal. It is a putting of the cart before the horse, which indicates either that the Home Secretary is ignorant altogether of the requirements of the profession or has been hoodwinked by the colleges and their representatives. The reform of the Colleges of Physicians and Surgeons has now become a matter of extreme indifference to all save an insignificant fraction of gentlemen who denominate themselves "pure." Whether Dr. H— was too long excluded from a fellowship into which he has at last "brawled" himself, or whether a representative of surgery might not have been found more worthy than Mr. C— or Mr. G—, are questions which only regard a certain *clique* in London; they have no connection with science, no interest for the profession, no influence on the well-being of the community; yet the legislature is called upon to set up the Colleges of Physicians and Surgeons as two great idols, and the