of the side of a guinea-pig. In two minutes the animal fell on the side, struggling, but without appearing to be conscious, there being no rigidity of the muscles. In four minutes ceased to breathe, and showed no outward sign of life, except a slight quivering of the lower lip.

On examination in five minutes from the commencement of the experiment there was no muscular rigidity. The heart was found filled with blood, and pulsating with a quick, feeble motion, chiefly perceptible in the auricle, as if struggling to get rid of its contents. This kind of movement lasted above two hours, and then could be renewed for a short time by some mechanical application. The blood in the heart, when examined the next day, was found to be coagulated. The bowels remained in a state of paralysis, as far as could be observed. There was no subsequent bulging as occurs after conia and nicotine, but which I have seen to be produced by any other substance.

From this example I should infer that the primary action of woorara is exciting, however speedily it may be followed by depression or paralysis.

Its action does not depend upon strychnia.

The convolution, caused by strychnia, are so remarkable and characteristic, that they could hardly fail to be particularly dwelt upon in the various accounts of the effects of woorara, if they were at all a constant phenomenon during the operation of the latter poison. In the experiment on the ox, mentioned by Professor Taylor, they were no doubt very decided, but nevertheless this is an exceptional case compared with the very numerous instances we have of an opposite nature. The occasional occurrence of convulsions in opposition to what seems to be the rule, is exemplified in the history of many other poisons, such as opium, carbonic acid, the poison of serpents, etc. But in directly comparing the effects of woorara with those of strychnia, we obtain some exceedingly well marked differences. Woorara produces extreme relaxation of the muscular system, strychnia a state of extreme rigidity. The former produces, not convulsions, with the accompanying sensations of the bowels, as the latter has no such effect. In numerous trials which I formerly made with strychnia on the hind legs of frogs, in order to ascertain whether any local effect would be produced, I fancied once or twice that I perceived evidence of increased local excitement, but never witnessed anything approaching to paralysis. On these grounds, it seems unnecessary to lengthen out the argument by entering into further details of experiments.

It was said in commencing, that the desire to obtain some woora for experiments was occasioned by the statement of Messrs. Morgan and Addison on the effect of the poison when locally applied to the bowels; and also by a wish to ascertain whether it would cause local paralysis. Both these points have been inquired into; and further, an attempt has been made to clear up the obscurity which exists with regard to the name of the poison, its action as compared with strychnia, and the question, whether it can be swallowed with impunity. As to what is here called the primary effect of the sedative poisons, or that brief stage of excitement which precedes their specific action, the point is one of considerable importance in connexion with the general theory of the operation of medicines. In proof of this, we may remark, that the chief remaining argument in favour of the almost exploded "doctrine of sympathy", so called, is founded on the extreme rapidity with which hydrocyanic acid and conia begin to act. Pure hydrocyanic acid, for instance, dropped into the eye is said to prostrate the animal within a few seconds. But as thus applied, Pereira says that it causes opacity and whiteness of the cornea, with a coherent fluid flow of it. Dr. Glover informs me, that the vapour of the common medicinal acid held to the eye produces instant redness, disappearing with equal rapidity. These are sufficient proofs to show that its primary action is stimulating; and hence it becomes a question, whether the suddenly fatal effects we find described from applying the acid to the eye do not merely partake of the general nature of a shock. In a communication formerly brought before this Society, I adduced some experimental and other evidence to prove that the specific action of this poison is exerted in the larynx and trachea. Again, Professor Christison, in his conclusion, states that conia is a local irritant, nevertheless attains much importance to an experiment of his own, as proving the doctrine of sympathetic action, in which this alkaloid, injected in the form of muriate into the femoral vein of a dog, produced immediate death. But it is not sufficiently explained as resulting from a sudden violent contraction of the heart, produced by the stimulus applied to it, and the consequent stoppage of the circulation, rather than from any specific action of the poison! Some remarks by the author on this subject will be found in my paper on "A Modification of Hemlock" in the Association Journal for 1853 (p. 559).

The following general conclusions may be given as a summary of the contents of the paper:

1. The term "woorara" appears to have been longer distinctly employed to designate the Indian arrow poison than any of the other names, except, perhaps, "curare", with the origin of which the author is not acquainted.

2. Woorara has a generic meaning like opium, saraparilla, etc., while Ticunas is only the proper name of one of the native tribes which prepare the poison. Ticunas, however, in common with Macusi and other Indian names, may be used specifically to distinguish particular manufactures, according to the practice with other drugs.

3. The physiological action of woora is opposed to the view that it owes its chief ingredient to a plant of the genus Strychnos.

4. In order to determine the point as to whether or not the poison is derived from the Strychnos toxiferra, it is necessary to obtain authentic specimens of the bark and wood in sufficient quantity to allow the question to be thoroughly investigated.

5. Woorara is a poison when swallowed, contrary to what is commonly believed on that subject.

6. It acts primarily as a stimulant.

7. It acts secondarily, or, as it may be termed, specifically, as a sedative, paralysing the functions of the nervous system; and this both locally where it is immediately applied to the body, and constitutionally after it enters the circulation.

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NOTES ON THE ADMINISTRATION OF GALIC ACID, ESPECIALLY IN HEMOPTYSIS AND IN ALBUMINuria.

By W. T. GAIRDNER, M.D., Physician to the Edinburgh Royal Infirmary.

[Read to the Medico-Chirurgical Society of Edinburgh, February 7th, 1855.]

The following observations may possibly have for the Medico-Chirurgical Society such an amount of interest as belongs to all facts bearing on the action of remedies whose place in the list of our therapeutic resources is as yet undetermined. I therefore venture to hope that they will be considered conclusive upon any point of great practical utility; but if they succeed in attracting the attention of the members so far as to lead to further experiments, or to decisive statements of experience already acquired in the course of
practice, they will have fulfilled the purpose for which I bring them forward on this occasion.

Gallic acid has, since its introduction to the notice of medical practitioners, been applied to a considerable number of cases, and apparently with very various success. As an astringent in almost every kind of internal hemorrhage; as an alterative and astringent in many chronic mucous discharges, particularly in those of the urinary organs, in diarrhoea, and even in dysentery; as a corrective of the sweat and of phthisis; as a tonic in the same disease, and in various forms of constitutional disorder; as more or less of a specific in purpura, cholera, pyrosis, and albuminuria; and as an anthelmintic in tapeworm,—it has occurred to me to see accounts of trials made with this remedy. Among these alleged therapeutic effects, the virtues of the remedy in hemoptysis and in albuminuria seem particularly deserving of attention, not only on account of the weight of testimony which has been adduced in their favour, but also because there are few conditions over which drugs have less of direct and demonstrable influence than over the chronic secretion of albumen in the urine, and the obstructive tendency to internal hemorrhage. While I have not neglected the use of gallic acid in other circumstances, it is in these affections that I have chiefly had occasion to employ it; and it is to these that I shall confine my present remarks. A few words will serve to indicate the character of my experience of this remedy in other forms of disease.

In the sweating of phthisis, I have made repeated trials of gallic acid, as of almost all the other empirical remedies, and while, in a few instances, good results appeared to follow, I am bound to confess that, on the whole, I entertain the gravest doubts as to the existence of any remedy which will not as often disappoint the practitioner as it will fulfill his expectations, if this single symptom be made, as such, the object of treatment. So strongly is this impression fixed upon me by the use of the ordinary astringents in such cases, that I have been very little tempted to diverge from the general plan of the treatment I habitually pursue in phthisis by the announcement of such novelties as the gallic acid and the oxide of zinc (recommended by Dr. Theophilus Thompson). Nevertheless, I have given each of these remedies in a few cases, and think myself entitled to say that their success was certainly not above the average. I may here incidentally remark, that, in many cases of obstatine hectic, no single drug has appeared to me to have so much power over the fever, and the sweating which is thereby prone to accompany it, as opium. So much is this the case, that I have repeatedly seen the night paroxysms both of fever and sweating averted, and the strength of the patient sustained in an extraordinary manner, by the administration at bed-time of a full dose of Dover's powder—a treatment of great difficulty. In one instance, I was permitted to acquaint my friend Dr. M'Cullough, as being in use in some of the Irish hospitals. Nor has the use of opium in these cases appeared to me to be followed by any subsequent bad effects, provided care be taken to reserve the drug for emergencies, and not to permit that abuse of it into which patients, guided by their sensations, are too apt to fall.

In two cases of hematuria, of a very obstinate character, I have tried gallic acid: in neither was it of the slightest service. It is right, however, to state that one of these cases had resisted in like manner a great variety of other remedies; and that I had reason to believe the patient affected with malignant disease of the bladder.

In simple diarrhoea, I have not found gallic acid to be at all comparable to the ordinary astringents. In dysentery and cholera, I have had no occasion to try this drug. I have, however, in the habit of employing gallic acid, alternately with or along with other remedies. The accidental and temporary nature of the symptom, the rapidity with which it disappears in some cases, and the obstinacy with which it persists in others, render the apprehensions of others unusually difficult. I continued, therefore, in most of the cases of hemorrhage from the lungs which came under my care for some years, to administer gallic acid at one time or other after the usual routine, in doses of from five to eight grains, repeated or three times a day, such attempts have been in use in Edinburg infirmary during the last ten years. The success of this practice was undoubtedly not very striking, and yet its failure was not so evident as to lead me to alter it. I was, however, on many occasions, with the exception of small physiological effects, on which I was availed, no possessing astringent properties so marked. In very few cases did it constipate the bowels; and in no other secretion could I trace any marked effect which could reasonably be attributed to it. When, therefore, in the spring of 1854, two or three cases of obstinate hemoptysis, I raised the daily dose, first to half a drachm, then to two drachms, and ultimately to one drachm. Finding that there was still no physiological effect, and that the drug was not to be detected, at least constantly, in the urine, I employed both alcoholic and aqueous solutions, and in some cases, solutions in a weak alkaline medium. In the summer of 1854, I began to observe two distinct phenomena as indications of the saturation of the system with gallic acid. One of these had been previously noticed by Dr. Bayes of Brighton, and was mentioned in a paper (Association Journal, 9th, 1854, p. 506) which fell into my hands soon after I had begun to employ the large doses of gallic acid. This was the conversion of the blood-stained sputum to a colour like that of ink—a condition which Dr. Bayes presumes to be coincidental with the cure of the hemoptysis, and heating "the complete saturation with the acid, which may then be given at much longer intervals, and after a few days be discontinued". A short period of observation enabled me to ascertain that Dr. Bayes was mistaken in his interpretation of this state of the expectation. In one case, hemoptysis repeatedly occurred to a small amount after the sputum had become inky; and it was evident that the inky tinge was not due to an alteration of the blood, but of the mucus of expectoration. In several other cases, I assured myself that the inky tinge remained in the sputum long after blood had ceased to be expectorated. This was particularly evident in one patient, a butcher, of very intemperate habits and unhealthy appearance, who was brought into the hospital by the officers of police, after the discharge of an enormous quantity of blood from the lungs, which had almost ceased on admission. I ordered him gallic acid, and fortified by the experience of Dr. Bayes, employed it in half-hourly doses of five grains. Next day, the sputum was very black, and there was no blood. Improvement went on, and the case became one of ordinary chronic tubercle: the gallic acid being gradually dropped. Finding, however, that he had repeatedly passed portions of worm, I determined to try the effect of gallic acid upon this parasite; and it was accordingly given once or twice in gradually increasing doses, till at last he took the apparently enormous quantity of half an ounce daily. The expectation almost immediately responded, by the appearance of a perfectly inky and uniformly diffused tint, unaccompanied by any trace of blood. About the same time, another case of this kind presented itself; and, shortly afterwards, more than one instance of inky sputum without hemoptysis was observed under gallic acid. It is worth while to notice that the tinta in the above case appeared totally unaffected by the gallic acid: the extract of male shield-fern, however, was afterwards employed, without bringing away any of it; and it is possible that the whole worm may have been detached spontaneously to either experiment.

It is worth while to notice that the tinta in the above case appeared totally unaffected by the gallic acid: the extract of male shield-fern, however, was afterwards employed, without bringing away any of it; and it is possible that the whole worm may have been detached spontaneously to either experiment. In the case above detailed, and in several others about the same time or shortly afterwards, I noticed a second sign of saturation of the system by gallic acid, to which no medical writer has hitherto (so far as I know) directed attention. This is, a very peculiar and darkening of the urine, which, from its natural clear amber tint, comes to resemble those specimens of Cairngorm stone called by the jewellers "smoke-tinted". The colour is very like that produced by mixing a very minute proportion of
ink, or rather of sepia, with the urine. It is sometimes quite distinct and striking; at others, so slightly altered from the normal as only to be appreciated by an eye familiar with it. As the result of a number of observations that have come to me, I may venture to say that a tinge of this tint is constantly present when the sputum is altered in colour; nor, vice versa, does the latter change invariably accompany the former. The smoke-tinted urine, however, generally shows gallic acid on being tested by an iron; while urine free from this hue, scene, if at all, gives none of the presence of the acid. So that I apprehend the presence of this tint ought to be regarded as one of the best tests we have of the presence of gallic acid in the secretions, the more so, as very small quantities appear to be indicated in this way when the urine is originally of good colour.

I do not regard the cause of the peculiar tint, whether of the urine or of the expectoration, I am not prepared to offer any very satisfactory theory. I at first supposed that the iron of the blood might be the source of both colours; more especially as this substance is known to exist in the normal urine in a colourless manner, and was proved likewise to exist in appreciable quantity in a small quantity of inky expectoration, analysed for me by Dr. George Wilson and Dr. Stevenson Macadam. I believe, however, that the conditions of the reaction must be different in phenomena, more complex than this; because gallic acid added to bronchitic sputa and normal urine, artificially, has uniformly failed to produce any tint comparable to that described, even after the lapse of several hours. The tint of expectoration appears to be destroyed by stratifying, and begins to fade as soon as decomposition commences; on the other hand, I have reason to believe that it is often developed and deepened in certain portions of the sputum by the first few hours of free exposure to the air. My friend Mr. Murray, the senior President of the Royal Medical Society, has pointed out to me the fact that in the presence of alkalis a solution of gallic acid rapidly becomes dark, even when no iron is present; but the colour thus produced is not comparable to that of the inky expectoration; nor is the inky sputum always, or even generally, decidedly alkaline.

To return to the subject of the use of gallic acid in hemoptysis, I wish, I could give a more positive opinion as to its good effects than that which I shall lay before the Society. The subject is one of no small difficulty. The transitory character of most pulmonary hemorrhages, under every treatment, their recurrence when least expected, and the frequency with which they cease before the action of remedies can be clearly manifested, are sufficient reasons for great caution in forming any conclusion. Before commencing the use of the large doses which I have indicated in this paper, I was more than once startled by the obstinacy and persistence of hemoptyses under what I believed to be full doses of the remedy. In one case, indeed, death occurred directly from hemoptysis in a patient who had been for a good many days under the influence of moderate doses of the drug. I am happy to admit that no similar instance has occurred to me since the use of the larger doses. At the same time, I must state that small and continuous bleedings have sometimes appeared to me to be but little checked, even after the characteristic inky colour has appeared in the mucous portion of the sputum. I am far, therefore, from sharing in the confident expectation of Dr. Bayes, that internal hemorrhages gallic acid "will disappoint no reasonable expectation in its curative powers;" and I cannot help thinking that that gentleman, in common probably with others, has underrated the tendency of pulmonary hemorrhages to spontaneous arrest by a process as sudden as it is not that in the presence of their condition. I should now be inclined to rely in estimating the therapeutic value of this agent is the disappearance of the hemoptysis as nearly as possible in coincidence with the appearance of the inky sputum. This fact Dr. Bayes has repeatedly observed in some of his numerous observations, but I have been disappointed in this expectation, partly because bleeding has sometimes recurred, though certainly in small quantities, after the full effect of the gallic acid had been produced; partly because, in other cases, the hemorrage had ceased before the characteristic colour had been eliminated, and occasionally when the inky tint has never been produced at all. Thus, in a young lady at present under treatment, hemoptysis continued in greater or less amount for a fortnight, then disappeared, but even now continues to recur in a slight extent occasionally, although during the hemorrhage she took daily, nearly a dram regularly from a drachm to a dram and a half of gallic acid per day, a quantity usually ample sufficient to tinge the sputum, but which in her case has never done so. I confidently anticipate in this case continued improvement under general treatment, but I shall scarcely ascribe this result in any considerable measure to the gallic acid.

On the whole, then, though disposed to believe that gallic acid, in producing the extremely marked effect which it does in some cases on the sputum, may exercise some astrincent power over the pulmonary capillaries, and though inclined to give it a further trial with this view, as a remedy perfectly safe and not improbably useful, I consider that the confident statements as to its good effects, particularly by those who have used it only in ordinary doses, have been based upon mistake. But great Dr. Bayes has done a very considerable damage to the fact indicative of the presence of gallic acid in the expectoration, and in demanding the use of larger doses than those in common use, with a view to the production of the inky colour of the sputum. Whether his high opinion of gallic acid as a remedy be justified by future experience or not, I trust, practitioners will not now lose sight of a fact so important to the correct appreciation of its therapeutical and physiological action.

Since these observations were made, my attention has been directed to a passage in Dr. Walde's work on Diseases of the Heart and Lungs, from which it appears that he also, as well as Dr. Bayes, has been in the habit of using large doses of gallic acid—twenty to thirty grains, at first every half-hour, when the hemorrhage is severe, with gradually diminishing doses less frequently repeated. "I have seen no ill effect," says Dr. Walde, "from these large doses." Dr. Walde also remarks, as might be expected, the altered tint of the expectoration; but, like Dr. Bayes, ascribes it erroneously to an effect of the remedy on the blood expectorated. As regards the result, he says, "my recent experience gives me a decided trust in gallic acid more than in any other agent of the class (astringents)."

In albinaminuric, my experiments with gallic acid in Bright's disease have been fewer in number than those above referred to in hemoptysis. They were nearly all in the first stage of the disease, having been taken with the larger doses of one, two or three drachms daily, and were continued over a period varying from weeks to months, the medicine being occasionally interrupted, to observe by contrast its effects on the albumen. I have now made what I consider a fair trial of this remedy in six or seven cases, in each of which it was pushed to the doses mentioned, maintained for a considerable time, and gave proof, either by the colour of the expectoration or by that of the urine, that it had been received in considerable quantity into the system.

The first case in which I employed it was that of an old man, I believe upwards of seventy years of age, and presenting all the marks of senile decay and decrepitude. He was emaciated, anemic, feeble both in mind and body, afflicted with cough, and occasionally with slight dropy of the legs. The urine contained a very large quantity of albumen and was deficient both in urea and nitrates. This was followed after a course of treatment by tincture of muriate of iron and other remedies, by which his general health was considerably improved, was detained in the hospital nearly two months, in order to be subjected to the treatment by gallic acid. The ordinary amount of albumen has not been observed; examinations (though not by chemical analysis) to be subject to few fluctuations. *

The patient was much pleased with the remedy, which was administered in a little whiskey, and persisted in asserting that he had taken it very well; as much as I could observe, he had much better, though no very apparent improvement took place further than what had been previously observed. At the end of the experiment, the albumen was in no degree diminished, nor had its fluctuations in the least degree corresponded to the amount of the remedy taken. The dark colour of the urine was frequently observed.

It would be tedious to detail the particulars of the remaining cases, as in none of them was any other result observed than in this. I shall only mention enough of their details to shew that they were fair subjects for the experiment, having indeed been chosen with the view of giving the remedy the fairest possible trial.

In one case of chronic Bright's disease, with chronic bronchitis (almost certainly tubercular), the patient has been placed under the influence of gallic acid on repeated occasions during the present winter. Throughout this period, his disease has remained nearly stationary, as indeed it has for upwards of a year, during which the case has been occasionally under my observation. The most remarkable feature in this case is the fact, that with urine in quantity and specific gravity not far from normal (indeed often in quantity in fazzoletti rather high), and with a large daily discharge of albumen, this man continues, though somewhat emaciated, to maintain his ground against the affection, both of the lung and the kidney; which are, to all appearance, not advanced from the time when I first saw him. The urine is proper to mention, is always clear, and has very rarely more than the normal mucous sediment. It is, therefore, an instance of what is often called non-desquamative disease; although I believe that in this, as in all other instances of chronic renal disease, with albuminous urine, fibrinous casts and epithelium are occasionally thrown off. If gallic acid is ever useful, by its astringent effect, in arresting the albuminous secretion, it ought certainly, I think, to show its power in such a case as this.

In several other cases of chronic Bright's disease resembling this one, I have looked carefully for the evidences of diminished albuminuria secretion under gallic acid. In all of them the result has been a total failure. In some of the experiments in question, I had the assistance of Dr. McCulough and Mr. Slight; and in the whole of the more recent and conclusive ones, my present assistant in the hospital, Dr. Inglis has given unremitting attention to their progress, which has also been observed by many other visitors to my wards during the present winter.

In one case, which I at one time regarded as an instance of acute albuminuria and dropsy, but about which I am now of opinion is rather doubtful, the result was a boy aged 17 years, at present under my care in the Infirmary. He has had a large, but fluctuating amount of albumen in his urine, which has been, however, generally of pretty fair specific gravity. On his first admission, he was affected with dropsy of the face and legs, the latter accompanied by a good deal of hardness, heat, and apparently somewhat erythematous tension. These symptoms disappeared, though slowly, under muriate of iron and other diuretics, which were given in full doses. The albumen at the same time was much reduced in quantity, the urine remaining permanently increased in quantity to not less than double its normal amount. At last, the albumen entirely disappeared, and remained absent for some weeks. At the end of this time the boy took a feverish attack, which was attended by a renewal of albumen in the urine, and slight, dropsy of the lower extremities. Gallic acid was then administered, continued for several weeks, and repeatedly; the result, however, was none, and albumen has continued to appear under the form of a tube, or so-called small drops of urine, ever since.

From these cases, the society will be able to judge of the results of my experience of the administration of gallic acid in hemoptysis, and will judge whether it should be so unsatisfactory; but it appears to be of importance that negative as well as positive experience should be stated on subjects of importance, such as this. For my own part, I consider the question of the power of this agent over albuminuria to be almost decided in the negative by the result of these trials, as well as by the still more negative if not so protracted experiments of my friend, Dr. Parkes of London. In hemoptysis, again, I am still not without hope of deriving benefit from a further trial of this remedy, although I confess that my confidence in it, as derived from the statements of others, is considerably shaken.

On the whole, if we admit that gallic acid possesses some of the astringent power of its congeners tannin, &c., I believe we must regard it as one of the weakest of all the remedies of this class. The same negative attribute which secures its admission to the general circulation (the absence of the power to coagulate gelatin) unfitts it for the office of a local astringent, and as a general remedy its physiological properties appear to be of the feeblest possible order. Nothing has struck me so much in the course of these experiments as the contrast between the actual results of gallic acid, and the effects produced by the same when given in very small daily amount. Thus one observer recommends it in the strongest manner as being, in one or two doses of two grains each, an almost infallible antidote to the premonitory diarrhoea of cholera. Another gives it in doses of from three to five grains against uterine hemorrhage. Numerous observers employ it in nearly the same doses in desperate cases of hemoptysis. Dr. Bayes correctly takes his stand against the idea generally current, that gallic acid has a tendency to produce febrile excitement. He ascribes to it, however, as a physiological action, as an incident with its therapeutic effect on hemoptysis, "a feeling of constriction in the forehead and eyes, with a buzzing sound in the ears and head." These effects, I am inclined to ascribe to the disease rather than to its remedy. They are familiar to almost every one as the reaction after loss of blood; and under no circumstances are they more apt to present themselves than after tolerably profuse hemoptysis. I can truly say that I have now observed many persons under the influence of from one to two draemata daily of gallic acid for weeks together without seeing any reason to ascribe to this substance the power of producing any such marked physiological effect. I have repeatedly questioned persons under the influence of the drug, with the express view of ascertaining any unusual sensations; but except a little feeling of dryness in the throat (not constant), and possibly slight constipation, I have not been able to find any other symptoms on the subject. In one man, indeed, an impetiginous or herpetic eruption on the chin and lips was developed under the remedy; but this same man took it for weeks, and has taken it for weeks since, without any renewal of these symptoms; and I never noticed a similar result in any other case. Dr. Inglis has repeatedly attempted in this man, by means of bibulous paper impregnated with iron, to procure evidence of the elimination of gallic acid by the skin: the result, however, has hitherto been negative. In some instances, the tongue has appeared to be somewhat loaded while the remedy was taken; in others, it has remained quite clean, and the appetite unaffected.

In one lady, a most susceptible and nervous person, extremely attentive to her own sensations, the catamenia were established as freely as usual under its influence in the large dose; nor was any complaint whatever made of the action of the remedy. This only acoustic, however, to conclude these observations without indicating my belief that, in continuing to administer gallic acid on the principle and in the way indicated by some of its advocates, we run some risk of substituting a very feeble, if not inert, remedial agent for other means more deserving of confidence.

Edinburgh, February 1855.