

**The iodo-bromide baths of Salice in gynecological practice : bennig [i.e. being] a communication to the seventh annual Congress of Climatology and Hydrology, held at Milan April 1902 / by L. Mangiagalli.**

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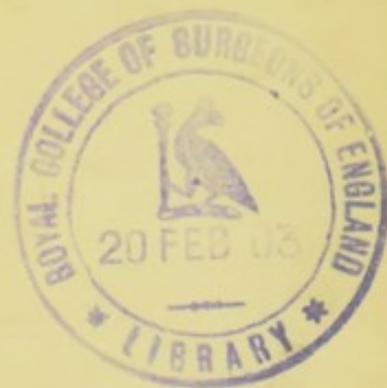
By Cav. Dott. L. MANGIAGALLI  
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THE  
**iodo-BROMIDE BATHS**  
**OF SALICE**

IN GYNECOLOGICAL PRACTICE

Bennig a Communication to the seventh annual Congress  
of Climatology and Hydrology, held at Milan April 1902

MILAN  
E. GUALDONI & C. PRINTERS  
N. 11 Marsala Street  
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1902





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Deputato al Parlamento



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As the title shews my communication is of a purely practical nature, to sum up for you the main points of my experience with thousands of patients, whom I have watched and had under observation chiefly at the Iodo-muriated baths of Salice. And here let me preface my remarks with the observation that the science of balneotherapeutics is chiefly based on clinical observation, in that the therapeutic value of mineral baths has not been explained yet either by chemical analysis or experiments.

I say not by chemical analysis because it reveals to us the « life » of a mineral water no more than the life and functions of an organism are mani-

fested to us by the analysis of the products of its combustion, and Leichtenstern's dictum that artificial mineral waters, manufactured carefully and with every requisite precaution, are identical to the natural waters in their therapeutic action, is singularly superficial and inconsistent with clinical experience. Experimental investigation has failed to solve the problem, because, experiments scientifically performed have, we might say, increased the value of our clinical observations by shewing that the absorption of even so diffusible a substance as Iodine, is very doubtful and cannot be looked to for the explanation we seek.

The science of balneotherapeutics has a wide field before it, opened up by recent researches on tissue metabolism, blood pressure and osmotic tension and by the physico-chemical conception we now have of a saline solution and of the electrolytic actions to which it may give rise. It is therefore a matter for general satisfaction that companies like those of Salsomaggiore and Salice have founded real Research laboratories in their respective establishments.

But while these are going on let us ask what answer we get from careful and unprejudiced clinical observation. I shall limit my remarks to the

therapeutics of Iodo-saline baths in diseases of the female genital organs. And the first question is this: what forms of gynecological affections constitute positive indications for Iodo-saline baths? I ask this question because it is certainly a mistake to imagine that malignant tumours are the only gynecological affections which derive no benefit from the baths (though, indeed, such cases flock to the baths without medical advice, as though to a miraculous fountain), or that in other gynecological cases bath treatment is indicated because one or other symptom is thereby relieved.

Clinical observation teaches us to discriminate in such cases, and above all that sometimes the indication of a complication or of the constitution must over-ride the indication of the gynecological condition. Catarrhal forms, for instance, make the greatest call upon the gynecologists skill and his knowledge of pathology and balneology.

Certain catarrhal conditions of the uterus, in patients, benefit more from mineral waters of the indifferent type, while certain other catarrhal forms in anaemic women, and women who have been exhausted by fevers or serious operations, improve most satisfactorily when treated with alkaline-ferruginous baths, hydropathic cures, or

arsenical baths. Again, those catarrhal conditions which are associated with irritable intestinal symptoms respond neither to arsenical nor iodo-muriated baths, but benefit undoubtedly from baths of the indifferent or sodic-bicarbonate types. Similarly iodo-muriated baths are contraindicated in uterine catarrhs which are associated with irritable bladder symptoms, for which class of case the special indication is for sodic-carbonate baths rich in lithia. Finally when cutaneous manifestations accompany the catarrhal condition of the uterus preference must sometimes be given to sulphurous and arsenical waters.

It is not enough then to diagnose the existence of uterine trouble to decide to send the patient to iodo-muriated baths; the gynecologist must satisfy himself that the general condition of his patient confirms the indication for balneological treatment, and the narrow specialist is a bad specialist, for it is only from a general knowledge of disease that one can rise to specialism. I could continue for a long time on this topic, in its reference for instance to amenorrhoeas and dysmenorrhoeas. The so-called mechanical form of dysmenorrhoea derives benefit not only from iodo-muriated baths, but also from indifferent wa-

ters; amenorrhoea, consequent upon exhaustion is best treated with alkaline-ferruginous or arsenical waters; on the other hand iodo-muriated baths produce excellent results in those cases of amenorrhoea which we often find in conjunction with obesity. Fibroids, also, may be advantageously treated with iodo-muriated baths, especially in the early stages of their development or in those frequent cases which are complicated by mischief in the annexa.

But it is in the exudative forms — whether parametric or perimetric, ovarian or tubal — that iodo-muriated baths produce the best results, and it was precisely in such cases that a facile science found it convenient to have recourse to the absorption theory, to make it an article of faith and the text of a commercial propaganda.

The denser the waters and the richer they were in iodine the greater was their action supposed to be. No one reflected that according to this argument, every patient should have gone to Salies de Béarn where the concentration of the waters is such that the patient is kept immersed by wicker-bands passing from one side of the bath to the other. But here I am addressing scientific observers who only wish to seek out the

truth, and we all know that the action of mineral baths is extraordinarily complex and that only straightforward and conscientious clinical observation of the results obtained can be appealed to, to determine the efficacy of this or that mineral bath in various morbid conditions. Besides, I said that I only meant to discuss some practical questions, nor indeed would I have allowed myself to make this digression on the theory of absorption, were it not that on it is based a practice which is sometimes harmful, and, from the scientific point of view, thoroughly irrational. — I mean the practice of introducing the speculum during the bath. This practice is only on a par with the famous « Trou du Capucin » that was in vogue at Royat and Plombières.

Among the questions which deserve special consideration and to which, if I have not already exhausted your patience, I would draw your attention, are those of bath treatment in pregnancy, at the menopause and during menstruation. As to pregnancy, it is certainly not a frequent occurrence in the class of patients who come to iodomuriated baths, since its presence excludes, as a rule, the exudative conditions for which these baths are most frequently prescribed. Nevertheless it

sometimes exists in spite of parametritis or complications in the annexa, or it may occur in patients sent to the baths for non gynecological complaints such as arthritis. Now I have never seen the slightest unpleasant effect in pregnant patients who have continued the treatment, and, if proper precautions are taken with regard to the temperature (which should not be higher than 98° F) and the avoidance of vaginal douches, there is absolutely no abortive tendency.

At the menopause, on the other hand, I never advise the use of strong mineral baths, which, by tending to set up uterine congestion, may establish menstruation again, or at least uterine haemorrhage, thereby violating nature. On the other hand iodo-muriated baths of a density not above 4° appear to me the very best treatment for the vascular and nervous disorders which often accompany, and for the obesity which sometimes follows the menopause.

I have now to speak on bath treatment with regard to menstruation, which I shall do at some length, as my ideas, borne out by long practice, are somewhat at variance with the universally accepted views on the subject. It is almost an unquestioned maxim that during menstruation the

patient must always abstain from bathing; and we find this principle set forth not only in the weighty manuals of Balneology, such as those of Braun, Flechsig, Thilenius, Valentiner, but also in special monographs such as those of Winternitz and Kisch. In the famous discussion on this question at the hydrological society of Paris 1874-75 we find this point of balneological orthodoxy already challenged, with regard to hydropathic treatment, sea-bathing, sulphur baths and indifferent mineral baths, but no mention is made of other baths which, rather find their indication in such cases.

I began to depart — very prudently at first and then gradually with more and more freedom — from this principle after the publication by Maca-wejew in 1893 of the results of his observations at Staraja in Russia, a spring of the Chloro-bromo iodine group like that of Salice, where most of my own observations have been made. You will easily realise how much the solution of this problem — whether it is expedient or not to continue the bath treatment during the menstrual period, and if so in what cases — how much, I say, the solution depends upon the usage of balneotherapy. So much does the usage of limiting the

bath treatment to the intermenstrual period, dominate the science, that it probably gave rise to the custom of vaguely and without any scientific or practical criterion prescribing the treatment for three weeks — in other words for the duration of the average intermenstrual period.

As a result of this we see the patient setting out for the baths, either during menstruation or towards its cessation according to the distance she has to travel, so as to reach her destination exactly at the end of her period and to be able to begin treatment at once. Then we see her set out again on her return journey either the day before or on the actual day on which the catamenia reappear, so that the fatigue, excitement and bustle of the journey have to be added to the hypersensitiveness and excitability of the patient at the menstrual period, a condition recognised by all gynecologists as involving a diminished power of resistance of the female constitution to every morbid process.

But the question comes to be, in what forms is it advisable to depart from the orthodox regulation and to allow, or rather prescribe iodo-muriated baths during the menstrual period? As a rule they are the very cases in which these baths

are most indicated — Chronic ovaritis, hyperplastic salpingitis, periovarian salpingitis, perimetritis, chronic parametritis, parenchymatous metritis, whenever the menstruation is not profuse. I follow the same plan with satisfactory results in cases of dysmenorrhœa — not only in those connected with tubo - ovarian trouble, parametritis or perimetritis but also in those of purely nervous origin, which are not due, at any rate, to any appreciable alterations of the generative organs; I also follow this plan in those cases of dysmenorrhœa which we meet with in Chlorotic girls with deficient uterine development and also in the so - called membranous dysmenorrhœa. On the other hand I advise intermission of the treatment during menstruation in catarrhal dysmenorrhœa and especially in hæmorrhagic endometritis, and in those forms which every experienced gynecologist must know are not very unusual and which we may class under the head of “Sequelæ of tubal gestation „.

On the other hand I have often had satisfactory results in cases of fibroid when the patient has continued under treatment during the period in fact not infrequently there has been a very evident hæmostatic result, but certain conditions

must be observed, namely that the temperature of the bath be from 102° F to 104° F instead of 98° F, that it last for not more than ten or fifteen minutes, and that after the bath the patient lie down — Half an hour later I order an injection of cornutin. In Chronic inflammatory affections also certain precautions must be observed if the treatment is to be continued during the menses; it must not be a recent inflammatory condition; there must be not even the slightest trace of fever — in fact it should be a considerable time since the fever has ceased; conditions in which abscess formation is going on must be excluded, which is not an easy matter as Pathology teaches us that in the centre even of solid exudative masses there are not infrequently small purulent foci, generally regressive but not always innocuous. In such cases treatment during menstruation may very easily rekindle the febrile process which seemed for so long a time to be extinguished, This is my reason for often requiring my patients to use the thermometer regularly. Even a slight rise of temperature in exudative gynecological conditions not only contraindicates the treatment during menstruation but also necessitates complete suspension of the baths for a time. This will shew

you too how important it is that the iodo — muriated bath treatment should be supervised, in so far as it is applied to gynecological cases, by one who possesses all the fineness of diagnostic skill and is able to recognise each morbid condition and the changes it undergoes.

With the foregoing limitations, then, my experience allows me to assert that it is advisable to continue treatment during menstruation in **chronic exudative conditions whether parenchymatous or peritoneal or parametric, granted the absence of fever, abscess-formation (latent or evident), and a history of tubal-pregnancy.**

Can we give a plausible explanation of this observed fact, which I daresay some of you will be able to confirm from your experience? It is not easy, because as yet we cannot give a reason for the wonderful mechanism of cure by which we see disappear and leave no trace behind them, after bath treatment, old exudations which have resisted every other form of treatment. Whatever be the "modus operandi," of the cure we must admit that in organs and tissues which are the seat of exudation, circulation and tissue metabolism are stimulated. Now experiment shews us that the simple hot bath, and in a greater degree the iodo-muriated bath, increases blood pressure, and possibly

this increase is connected with the alterations which occur in diseased organs and tissues by the acceleration of the circulation. Now can we find in this fact a reasonable explanation of the use of the bath treatment during the period? We no longer look on the menstrual process as purely local. Whatever be its connection with evolution, we admit to-day that menstruation is closely linked with a cyclic process which lasts about a month and which is marked by a periodic increase and decrease of all the biochemical processes, of all the functional activities — of the pulse, of the temperature, of the muscular force, of blood-pressure, of nitrogen elimination — and in the resulting curve, in the high-tide and ebb-tide of these functional activities, menstruation represents the lowest point of the curve, the ebb-tide, in which the conditions of absorption and of resolution of exudates, are least favourable. In such circumstances bath treatment may represent the corrective of the depressed functional activities by increasing blood pressure and stimulating metabolism. But I do not wish to make any theories, which, at the present stage of balneotherapeutics would assuredly be premature — I only wished to call your attention to fact in which I am convinced my observation has not misled me.

The hydropathic establishment of Salice, in the Valley of the Staffora, lies on the first slopes of the Ligurian Appenines. It is 5 miles from Voghera and can be reached in little more than an hour from Milan and in two from Genoa or Turin. The surroundings are picturesque, the neighbourhood is richly wooded and the climate is cool.

The geological zone from which the mineral water of Salice is derived, is the same as that of Salsomaggiore. At varying depths marl limestone and miocene which is often bituminous alternate with the so-called scaly clay, which is the stratum from which arise the tars and mineral waters, laden with Chlorides and Iodides.

The Iodo-muriated waters of Salice come from five Artesian wells, which are together capable of supplying over 20,000 gallons a day. The waters belong to the class of the muriated and ferruginous iodo-bromide waters. Without quoting at length the quantitative and qualitative chemical analyses, we may mention that Beaumé's areometer gives an indication of 9° with the waters of Salice. If we reflect that in the iodo-muriated water treatment, it is desirable to pass rapidly from the lower degrees of density to the highest, as soon as we have gauged the tolerance of the patient, it is obvious that the waters of Salice offer exceptional advantages for the treatment: indeed it is unnecessary, except during the first few days to dilute, as is done in similar establishments, the natural water as it comes from the well. This advantage of having but rarely to dilute the mineral waters of Salice brings with it other advantages, which without quoting in proof the necessary statistics resolve themselves into a higher percentage of iodides and bromides.

A convincing demonstration of this fact has been furnished by Dr Diviani (Seventh National Congress of Hydrology, Milan.) who has calculated with the unimpeachable authority of figures, that in a bath of Salice waters, at 9° Beaumé there are for every 300 litres 26,000 grammes of Chlorides, 87 grammes of bromides and 15 grammes of iodides, while in a similar bath of Salsomaggiore waters, for example, there are similarly 26,000 grammes of Chlorides, but only 35 of bromides and 11 of iodides.

It has thus been shown how erroneous was the prejudice, prevalent even among members of the profession, that the waters of Salice were weakly mineralized: so far is this from being the case that we can state that with these waters it is possible to prepare baths which contain the largest percentage of iodides and bromides in use in bath treatment.

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