contributes so much as mercury administered carefully for a short time, provided that all other hygienic measures are steadily carried out. These points of practice were illustrated about twenty years ago by Dr. Theophilus Thompson, and more lately by Dr. Thorowgood.

The slightest suspicion of a "tubercular predisposition" would negative the propriety of any mercury being given internally. But I remember as a student the curiosity and wonder excited by Dr. Graves' mercurial treatment of acute miliary tubercle of the lungs, as related in his clinical lectures. Few disciples were so daring as the master; and it may be admitted that Dr. Graves' cases might have been grouped now under the head of syphilitic phthisis.*

Another grand therapeutic use of mercury is in the management of some superficial diseases of the skin. All itching papular eruptions may be beneficially treated with perchloride of mercury; arsenic is poison to them. Some varieties of lichen are more controllable by perchloride of mercury than by any other medicine; and the same drug often drives away chronic forms of urticaria. There are few therapeutic combinations more valuable than perchloride of mercury and colchicum, especially in that chronic eczema in which the neurotic element of irritation causes trouble; and, in relapsing pemphigus, arsenic and perchloride of mercury together will sometimes succeed when the former alone has failed.

I conclude this paper with the expression of a wish that some means could be found of disguising mercury as it appears in prescriptions. The fatal abbreviation *hydr.* tells its own tale. There seems no valid reason why the letter *h.*, or the chemical symbol *Hg.*, might not do medical duty, and prevent practitioners from being embarrassed by the inquisitiveness of their patients. An eclectic therapeutics will learn the true doctrine of all powerful medicines, when to give them and when to refrain; and the right use of mercury, as of venesection, is probably one of the severest tests of therapeutic skill.

BATH THERMAL MINERAL WATERS: THEIR USES AND ABUSES.

By A. B. BRABAZON, M.D.,
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II.

Gout.—I now come to the consideration of the therapeutical powers of these mineral waters as regards gout. In considering the subject, I beg to be understood to refer to gout, only in its subacute or chronic form. Cases of acute gout rarely present themselves for treatment of this kind, though I have heard of *very* unfortunate consequences resulting to patients who, when suffering from acute gout, had been so foolish as to plunge into the thermal baths without previously asking or taking any proper advice. I also include in the category of gout cases of so-called "rheumatic gout".

The number of cases of gout submitted during the year ending May 1877 is comparatively small as compared with rheumatism. There were really ninety-seven cases discharged. For the sake of round numbers, I have taken eighty cases in the order of date of discharge. This number is made up of sixty-six males and fourteen females. The statistical tables are arranged in a similar manner to that adopted in rheumatism; and I will beg my readers to refer to these tables to enable them fully to understand any observations I may have to make. The total percentage of "cured" is not by any means so high in gout as in rheumatism, being in the proportion of 12.5 in the former to 22.1 in the latter. The highest average of "cured" is that among males between 20 and 40, being 24.2; but there is a remarkable diminution of percentage between 40 and 60, amounting then only to 3.2; thus showing the probabilities of cure, as far as immunity from pain and other symptoms may be called a cure, to be about eight times as great in the earlier double decade as in the later. Of females, there is but one discharged as cured, and that one over 60; but, as only two were discharged altogether over 60, we cannot strike a fair average. The total number of cases discharged as "much better" was fifty-eight: fifty-one males and seven females. I will here remark that the difference between the relative terms "cured" and "much better" is much less than is to be understood by the same terms as applied to rheumatism. I mean that, in gout, the "cured" may, in some instances, more probably be considered as "much better"; while, in rheumatism, the terms are much more absolutely distinct and appreciable. We find that twenty-five males were discharged "much better" between 20 and 40, and a similar

number between 40 and 60; this gives a percentage on the total discharged at these periods of 75.7 and 80.6 respectively. Why there should be a more favourable percentage at the later period of life, I cannot explain; but I will vouch for the fact. The percentage of results of treatment as regards females within the periods of life above mentioned is founded on a numerically small proportion of cases; but, taking into account the relative disproportion between the numbers of males and females treated—viz., sixty-six to fourteen—I think we may safely admit the percentages at these periods as equivalent to 66.6 and 44.4 respectively, showing a decided inferiority as to results of treatment as compared with those of the male sex. Under the head of "better", we find no males discharged under 40. From 40 to 60, inclusive, four males were discharged, giving a percentage of 12.9 on the total number of males discharged within this period; viz., thirty-one. On looking into the female statistics as regards the period between 20 and 40, we find one discharged "better" out of three cases; the percentage is 33.3; but I fear that the numbers are almost too low to enable us to draw perfectly reliable conclusions. Between 40 and 60, we may, I think, arrive at satisfactory results on sufficient ground, numerically speaking, and the percentage is 22.2. Thus it appears, regarding the period of life between 40 and 60, females apparently have considerably the advantage, in the proportion of 22.2 to 12.9. This statistical fact may be accounted for in one of two ways: either that really gout is more amenable to treatment in females than in males at this period of life: a fact which, I think, is controverted by the relative percentages under the term of "much better", or that the much larger number of males than females discharged under the heads of "cured" and "much better" leaves a comparatively small number to be accounted for under the terms "better" and "no better", and causes a small percentage accordingly. I myself incline to the latter opinion.

Finally, we arrive at those cases discharged "no better". We have but five cases to deal with—two males and three females—out of a total of eighty; making an average per cent. of 3.03 for males and 21.4 for females, the collective average being 6.2. Comparing this with the collective average per cent. of cases discharged "cured" and "much better"—viz., 12.5 and 72.5 respectively—there cannot be much room for doubt or scepticism as to the effect of the Bath mineral waters in gout, under proper conditions and under favourable circumstances.

It would be an act of presumption on my part to point out the well known complications and consequences of gout; their name is legion. I will venture so far as to say that much which I have said as to the conditions existing in rheumatism is equally applicable to its congener gout; but it should be remembered, in advising thermal baths, that the organic complications and consequences in the latter are, particularly as age advances, more serious than in the former: one is more likely to meet with arterial degeneration and consequent cerebral disease, or with fatty degeneration of the cardiac muscular tissue, or, again, with renal disease, all of which affections, according to degree, more or less affect the probabilities of improvement or the propriety of attempting treatment by thermal baths; but it should also be remembered that many cases in which hot baths might be injurious, or even dangerous, will be materially benefited by the internal administration of the "waters".

My own experience leads me fully to endorse the opinion recorded by Dr. Garrod, that mineral baths should be avoided where there is much structural disease of the heart or kidneys, or when an acute attack of gout is impending; and I think this remark is equally applicable to an impending subacute attack.

I will conclude these few observations by expressing my individual opinion that, as a general rule, the Bath mineral waters will be found more beneficial in cases of atonic gout, or where there is a somewhat debilitated habit of constitution, than in those of the sthenic or acute kind; though I do not mean to say that, under proper conditions, cases of either description will not derive benefit from their careful administration.

The influence of the baths upon the local conditions arising in gout depends, of course, on the degree and kind of these conditions. Thus joints which have been the objects of attack for the first or second time, in which perfect mobility may have been partially and temporarily interfered with, and in which all acute local symptoms have subsided, will, I have no doubt, regain their normal condition under such treatment. But, again, I do not believe that this or any other treatment will restore mobility to joints which have been the seat of disease for a lengthened time, and in which cartilages, synovial membrane, ligamentous structure, and the sheaths of the tendons around these joints, have become the seat of gouty deposits in the concrete form of urate of soda; but, even in these unhappy conditions, the element of pain is to be taken into account, and great relief may be expected from the use of the waters. Between the extreme cases which I have attempted

* A recent monograph by Dr. Charteris affords a clue to the more hopeful treatment of "acute phthisis".

to describe there are very many indeed in which most satisfactory results may be almost confidently expected.

Sciatica; Lumbago; Coxalgia.—I have placed these diseases together because, as far as constitutional causes are concerned, they may be considered to be similar; and any remarks I have made, and any statistical deductions I have drawn, are equally applicable to them; but sciatica, I think, deserves more than this passing notice, both in respect of its comparative frequency and the generally severe pain which accompanies this occasionally intractable affection. Forty-six cases of sciatica were discharged from hospital during the years 1876-77: forty-two males and four females. This fact shows the much greater frequency of the affection in males than females. Under 20 and over 60, the disease appears to be rare. The period between 40 and 60 appears to be most favoured; in fact, the numbers discharged under 20 and over 60 are scarcely sufficient to afford decided results. The percentage on the male side of "cured" under the remaining two periods are sufficiently favourable to attract special notice: 36.5 and 13.2 respectively. The percentage also of those "much better", at the same period, is also remarkable, being 50.0 and 76.6. The contrast between these favourable results and those of patients discharged "no better" is very striking. Taking these same periods, 20 to 40 and 40 to 60, we find the percentage in the latter as 12.5 and 3.3 respectively. On the female side, four cases are scarcely sufficient on which to build an average, and therefore I will leave it to my readers to attach what significance they may think proper to the results as recorded in the table.

Of sciatica generally, and of the purely local or neuralgic forms of the disease particularly, I will say that, as far as my own experience goes, I have found no other form of disease more likely to be cured or relieved by these mineral waters, though occasionally supplemental treatment by galvanism or hypodermic injections of morphine may be advantageously employed.

Lumbago, as a term, is so very general in its application, that I must here limit it to the gouty and rheumatic forms, and also include lumbago as the result of injury or accident. The statistical table of lumbago shows only ten cases: six males and four females. The percentage of "cured" and "no better" among males calculated on total discharged is the same; viz., 16.6; 50 per cent. were discharged "much better". Among females, the percentage of those discharged "much better" and "no better" was in both 25; 50 per cent. were discharged "better". The numbers may be rather too small to arrive at just conclusions; but I fully believe larger numbers would develop statistical results even more favourable, as I am fully impressed with the notion that such affections of what I may be permitted to call fibro-muscular structures are in a high degree favourable for this special form of treatment. I shall not dwell on coxalgia specially; but I will beg of my readers to regard it simply in the light of a gouty or rheumatic affection causing pain in the hip-joint, to which the same remarks are applicable as to other joints similarly affected.

Hemiplegia.—I pass now to a class of diseases so important in their nature, and presenting occasionally such doubt and difficulty in diagnosis, prognosis, and treatment, that it is with great diffidence indeed I approach this part of my subject. I know I may probably express opinions on some points from which my colleagues, and others equally well informed as myself, may differ; but I beg to be understood to give those as derived only from personal observation and founded on personal experience. All the classes of diseases to which I have alluded may be treated with the thermal water, for a time at least, possibly with impunity; no harm beyond loss of time and some expense may accrue, although no good results may be obtained; but affections of the nervous system cannot be thus trifled with, and therapeutic agents even so simple and innocent as, according to some, are the Bath mineral waters will be employed either for "weal or woe" to the patient.

During the year 1876-77, thirty-two cases were discharged marked "hemiplegia": twenty-eight males and four females. No males and but two females were discharged under 20. The largest number discharged as to periods of life, consisting of nineteen males, was between 40 and 60. Out of thirty-two cases discharged there was but one cured—a male between 40 and 60. Probably a fair way of arriving at a legitimate conclusion will be to contrast the "cured" with those discharged as "no better". Taking males, the percentage of "cured" in those discharged between 20 and 40 is *nil*. The percentage of those discharged within the same period as "no better" is 16.6. Again, between the ages of 40 and 60, the percentage of "cured" to that of "no better" is as 5.2 to 36.8. Over 60 there are no cures recorded, nor are any discharged "much better". The percentage at this period of life, as regards those discharged "better" and "no better", is 66.6 to 33.3. The percentage of

"cured" among males total is 3.5; the percentage of those discharged "no better" among males total is 32.1. The percentage of males and females collectively is 3.1 "cured" to 28.1 "no better". I draw attention to the fact that it is only among those discharged under the term "better" that the percentages will be found higher than among those discharged as "no better". I candidly confess that I attach less distinctive signification to the term "better" than to the other three terms into which I have subdivided the cases. I shall submit these statistics to my readers, and leave it to them to judge whether or not they present a very unfavourable aspect as to results when contrasted with those of the diseases before mentioned.

Paraplegia.—As only four cases were discharged during the year, I need scarcely tabulate them in regular form; they were two males and two females. Two were cured, aged 12 and 29 respectively, both females. Of the two males, one was discharged "much better", aged 40, and one was discharged "no better", aged 57. It will be observed that the two cured cases were females, and I beg to draw attention to the ages. One was 12 and the other 29. As regards the one at 12, it is, I think, improbable that serious organic mischief of the spinal cord existed at this age; there are unfortunately no records of the case which I can find; but I would be inclined to suppose that such a case was the result of serous effusion, the consequence of spinal meningitis or possibly of congestion of the cord itself, brought on by cold, rheumatism, or tubercular deposit. Such a case, I can well imagine, would very probably be cured, and certainly improved, by such treatment as thermal baths. In the other case (also a female aged 29), I have no recorded history; but, without one, I confess to scepticism as to organic disease, and I would rather rely on some of the causes just mentioned as sufficient to produce the symptoms; adding to these possible hysteria. Of the case of paraplegia discharged at 40, a male, I have an intimate knowledge, as the patient was under my own care in hospital. He had been an engineer on the Great Western Railway, and, in a railway accident, received severe injuries, concussion of the brain and spinal cord amongst others. He was at first a patient in the United Hospital in Bath, and narrowly escaped fatal consequences of his severe injury. He was thence transferred to the Bath Mineral Water Hospital, with the hope that the symptoms of paralysis which remained might be improved by a system of baths. When admitted, there were symptoms of hemiplegia as regarded his face, which was distorted, and of paraplegia as regarded loss of power over both legs. He certainly left the hospital much better as regarded power of locomotion, and somewhat, but not so much, improved as regarded his articulation, memory, and other cerebral symptoms.

I mention this case particularly, as I consider it a typical one of the kind of paralysis which, I believe, may be and is frequently improved by the use of thermal baths, as contradistinguished from the class which I believe to be incapable of improvement. In the former class, I place cases where paralysis is what one might call acute, arising from mechanical pressure of serous or sanguineous effusion, in which there has been no disintegrative injury to the brain or spinal cord, and in which absorption of the effused material removes completely or partially the dependent consequences. In the latter class I place cases of chronic cerebral or spinal disease, whether it be softening or induration, or the effect of innutrition. I hold that, if disintegration of the tissue of the brain or spinal cord have taken place, it is perfectly useless to submit such cases, with a prospect of improvement, to mineral water treatment, whether applied internally or externally.

Locomotor Ataxy.—During three years, I can only find four patients discharged from hospital having been treated for this disease. They were all males, aged 26, 36, 42, and 57. The two patients, aged respectively 26 and 57, were marked "much better"; the two at the intermediate ages were marked "better". These numbers are too small on which to found legitimate conclusions; I can, however, add two cases which came under my own notice in private practice, and in which I carefully and for some time employed the baths and waters. I confess to having been disappointed in the results in both cases. I should mention that, in these cases, there was a gouty cachexia.

Wasting Palsy.—During the three years 1874-75, 1875-76, 1876-77, seven cases of "wasting palsy" were discharged from hospital: six males and one female. I may add to this case a private patient treated by myself aged 60, making eight in all. The number is scarcely sufficient for a statistical table of age and sex; but we can easily arrive at a practical conclusion as far as these numbers go. Four males were discharged better, aged respectively 33, 34, 35, and 52. Two males and one female, aged respectively 20, 50, and 26, were discharged no better, adding the case treated by myself. Out of eight we have four no better, being 50 per cent. of incurables.

TABLE.—*Bath Mineral Water Hospital.*—Statistical Results of Treatment of Disease, with Percentages.

		A.—Numbers Discharged at the several Ages.										B.—Percentage of Results of Treatment according to Age, for Males and Females separately.										C.—Percentages in proportion to Discharges for Males and Females separately and collectively.			Number of Cases Discharged.
		Males.					Females.					Males.					Females.					M.	F.	Total.	
		Under 20.	20 to 40.	40 to 60.	Over 60.		Under 20.	20 to 40.	40 to 60.	Over 60.		Under 20.	20 to 40.	40 to 60.	Over 60.		Under 20.	20 to 40.	40 to 60.	Over 60.		Per cent.	Per cent.	Per cent.	
GOUT.	Cured	..	8	1	..	..	..	..	1	..	24.2	3.2	..	..	..	..	..	44.4	50	13.6	6.1	12.5	Males .... 66 Females .. 14		
	Much better.	..	25	25	1	..	..	2	4	1	75.7	80.6	..	..	66.6	..	..	50	77.2	50	72.5				
	Better	..	..	4	..	..	..	1	2	..	..	12.9	..	..	33.3	22.2	..	6.09	21.4	8.7					
	No better.	..	..	1	1	..	..	..	3	..	..	3.2	..	..	..	33.3	..	3.03	21.4	6.2					
	Total	..	33	31	2	..	3	9	2	..	..	..	..	..	..	..	..	..	..	..	..	..			
SCIATICA	Cured	..	3	4	2	..	..	..	..	..	36.5	13.2	66.6	..	..	..	..	..	21.4	..	19.5	Males .... 42 Females .. 4			
	Much better.	1	4	23	..	..	1	1	1	..	50	76.6	..	..	50	..	..	66.4	75	67.3					
	Better	..	..	2	1	..	..	..	..	..	..	6.6	33.3	..	..	..	..	7.1	..	6.5					
	No better.	..	1	1	..	..	1	..	..	..	12.5	3.3	..	..	50	..	..	4.7	25	6.5					
	Total	1	8	30	3	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..				
LUMBAGO	Cured	..	1	..	..	..	..	..	..	..	33.3	..	..	..	..	..	..	..	16.6	..	10	Males .... 6 Females .. 4			
	Much better.	..	2	1	..	..	1	..	..	..	66.6	33.3	..	..	50	..	..	50	25	40					
	Better	..	..	1	..	..	1	1	..	..	..	33.3	..	..	50	50	..	16.6	50	30					
	No better.	..	..	1	..	..	..	1	..	..	..	33.3	..	..	..	50	..	16.6	25	20					
	Total	..	3	3	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..				
HEMIPLEGIA	Cured	..	..	1	..	..	..	..	..	..	..	5.2	..	..	..	..	..	..	3.5	..	3.5	Males .... 28 Females .. 4			
	Much better.	..	1	5	..	..	1	..	..	..	16.6	26.3	..	..	..	..	..	21.4	..	21.4					
	Better	..	4	6	2	1	1	1	..	..	66.6	31.5	66.6	..	..	..	..	41.4	..	41.6					
	No better.	..	1	7	1	..	..	..	..	..	16.6	30	33.3	..	..	..	..	32.1	..	32.1					
	Total	..	6	19	3	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..				
WASTING PALSY	Cured	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Males .... 6 Females .. 1			
	Much better.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
	Better	..	3	1	..	..	..	..	..	..	75.0	50	..	..	..	..	..	66.6	..	57.1					
	No better.	..	1	1	..	..	1	..	..	..	25	50	..	..	..	..	..	33.3	..	42.8					
	Total	..	4	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
CHOREA	Cured	2	..	..	..	10	..	..	..	66.6	..	..	..	76.9	..	..	..	66.6	76.9	75	Males .... 3 Females .. 13				
	Much better.	1	..	..	..	1	..	..	..	33.3	..	..	..	7.6	..	..	..	33.3	7.6	12.5					
	Better	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
	No better.	..	..	..	..	2	..	..	..	..	..	..	..	15.3	..	..	..	15.3	..	12.5					
	Total	3	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..			

When I contrast the percentage total (*vide* Table C) among males, and find that, under the comparative term "better", the percentage is 66.6, while under the positive term (if I may be a little ungrammatical) "no better" it is 33.3, I may be pardoned if I am somewhat sceptical of favourable results from this special treatment in this form of disease.

Chorea.—Sixteen cases of this disease were discharged from hospital during the year terminating May 1877. The records do not give any information as to their complications, or whether they were bilateral or unilateral. My own observations, founded on the cases which have been under my own care, would lead me to the conclusion that most of the cases have been bilateral, uncomplicated with cardiac or cerebro-spinal disease, though frequently associated with hysteria and sometimes with rheumatism. The table of statistics is a short one, as all the cases were under 20 and varied from 9 to 13 years of age. The small proportion of males to females is remarkable: three to thirteen. The percentage of results in this troublesome nervous affection is, I think, very favourable as regards those cured, amounting in females to 76.9 per cent. of females discharged, and in males to 66.6 per cent. of males total. The percentage of females cured in proportion to the total number discharged = 16 is 63.5, and the percentage of cured males and females collectively is seventy-five. The results of treatment of this affection by mineral tepid baths and waters was to me quite unexpected, and, had I not the opportunity of personal observation, I should have been sceptical. I can, however, vouch for the truth of these results as recorded on the patients leaving the hospital, nor have I remarked that choreic cases often apply for readmission. In those cases treated by myself, I have trusted entirely to the effect of the waters, and have not employed any supplementary treatment. It would be difficult to account for the *modus operandi* of the waters in cases of this disease. Of course, there is almost always functional cardiac disturbance.

[To be continued.]

DEATHS FROM ETHER.

By CAWTLEY DAWSON, L.R.C.P., M.R.C.S., Leeds.

THE following analysis of the reports of deaths under ether is drawn up, not with the intention of comparing them with those under chloroform, it being assumed that the former has fully established itself as by far the safer anæsthetic, but with the object of gathering all the information they afford and learning, if possible, all the preventable dangers, so as to improve the results. If we are satisfied that, although the percentage of deaths from ether is apparently below that of deaths from chloroform, we can yet improve by experience, and help to raise still further, though in a small measure, the science of anæsthesia towards the high standard of perfect safety which we trust is its ultimate position, it is not enough that we read reports of fatal cases at the times they appear in our journals, but we must again and again recall them, place them side by side, compare them with one another, and so scrutinise their every feature with untiring zeal, that, if possible, we may trace certain marks running throughout them, and become so intimate with those marks as to be able to recognise their earliest appearance or prevent their appearance altogether.

In the BRITISH MEDICAL JOURNAL, *Lancet*, and *Medical Times and Gazette*, for the last ten years, there have been recorded one hundred and fifty-one deaths during the administration of anæsthetics. The following table shows the numbers recorded in each year.

In 1868	6 deaths.	In 1873	23 deaths.
" 1869	13 "	" 1874	11 "
" 1870	12 "	" 1875	16 "
" 1871	14 "	" 1876	18 "
" 1872	20 "	" 1877	18 "

For the mere purpose of statistics, these figures are perfectly useless because the journals have not been expected to be, nor have they claimed to be, authorities upon the numbers of deaths. Indeed, previously to the year 1872, there is abundant evidence to show that not only did they repeatedly speak of the deaths from anæsthetics without