

to see how it can be otherwise, until a knowledge of mental diseases and some experience of them is demanded of every candidate for a degree or diploma in medicine. The recognition of this want is daily, I am glad to observe, becoming more practical, and I may not, perhaps, be considered visionary, if I venture to express my belief that the necessity for a special knowledge of mental diseases and obliquities, will, in the cases of those medical men who have to do with our criminal population, ere long demand the careful consideration of the proper authorities.

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*The Shower-bath in Insanity.* By JOHN A. CAMPBELL, M.D.,  
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(*Read at a Quarterly Meeting of the Psychological Society, held at the Royal College of Physicians, Edinburgh, November 21st, 1872.*)

At a meeting of a Society such as ours, where everything which has the remotest tendency to promote or aid the recovery of patients who labour under mental alienation, becomes an object of interest, I feel no hesitation in bringing forward a short paper on the use of cold water applied to the human body in the form and much after the same fashion as that in which nature finds it most beneficial to the vegetable kingdom.

In case, from the title of my communication, any one may take up the erroneous impression that I advocate the use of shower-baths which pour buckets full of water per second on the heads of miserable patients, I shall begin by giving a short description of the shower-bath in use at Garlands. I shall then give an analysis of the cases which have been treated by the shower-bath in the ordinary practice of the asylum while I have acted as Assistant Physician in it, with the remarks that seem to be suitable or warranted by the changes noticed in the different cases.

I have no doubt that at first sight objection may be taken to the mode I am about to adopt in treating this subject, in that it is one unlikely to give trustworthy results, on account of the treatment having only been used in certain cases, and on preconceived ideas; but I think most medical men will bear me out in the opinion, that the analysis of a

number of cases treated by any particular method is not only beneficial as a guide for one's own use in future practice, but also may be made to a certain extent available in forming general conclusions as to the class of cases in which benefit may be justly looked for.

*Description of Bath.*—There are four shower-baths in the Asylum, two in each division, and of the four, two of each are similar. I shall only describe the one in which the fall of water is greatest as regards quantity and height of fall. It is a closed bath, 26 inches in diameter inside; height from floor to roof,  $9\frac{1}{2}$  feet; the perforated zinc plate through which the water falls being circular, and 14 inches in diameter. The total quantity of water which falls in the bath during a minute is nine gallons; and the amount which falls on a man's head 22 inches in circumference at a height of 5 feet 8 inches from the floor during that time is four gallons.\*

*Analysis of Cases.*—I have gone over the daily returns, in which every shower-bath given each day is noted, collected the names, and have analysed the cases which have been treated by this method between the first of February, 1867, and the first of October, 1872, noting the following particulars:—

1st.—Number treated.

2nd.—Length of time under treatment.

3rd.—Mental state of those treated, and changes noticed while under treatment, viz.:—

(a.) Recovery.

(b.) Improvement in bodily and mental state.

(c.) Improvement in bodily state alone.

(d.) No effects.

(e.) Bad effects.

4th.—Age of those treated.

1st.—I find that 118 patients have been under treatment, of whom 51 were males and 67 females.

2nd.—The duration of each bath never exceeded in the cases of the females half a minute, in the cases of the males one minute, and in many cases only a few seconds for the first two or three baths. The periods of time during which they were treated varied from a few days in cases where ill effects were noticed, to six months, a year, and in one case two years. In the majority of the cases the treatment was

\* The shower-baths in this Asylum are kept locked except when in use, the head attendants keeping the keys, and giving the baths when ordered by the medical officers.

continued from one to four months. I need hardly mention that the patients got the bath immediately on getting out of bed in the morning.

*Mental State.*—I find that the cases, to render them intelligible, must be placed under as many as seven headings.

*The First heading* consists of a class of cases which had Insanity of Puberty, Masturbation, Hysterical Mania, or some form of insanity referable to the sexual system. Under this heading I find 35 cases—19 males and 16 females: of the former 13 recovered, 2 improved in body and mind, one improved in bodily health alone, and in 3 ill effects showed themselves. Of the latter, 10 recovered, 2 improved in bodily health and mental state; in 2 there were no effects noticed, and in 2 ill effects appeared.

*The Second heading* consists of Puerperal Insanity. I find 19 under this heading, in all of whom recovery took place.

*The Third.* Periodic Idiopathic Mania. Consists of 8 cases, 5 males and 3 females, of whom 2 of each sex recovered, 2 males improved in bodily and mental health, one male improved in bodily health alone, and in one female no effects were noticed.

*The Fourth.* Chronic Idiopathic Mania. Consists of 35 cases, 19 males and 16 females. One male and one female recovered, 3 males and 5 females improved in both body and mind, 10 males and 2 females improved in bodily state alone, and in 5 males and 8 females there were no effects noticed.

*The Fifth.* Melancholia. Consists of 9 cases, 5 males and 4 females, of whom one male and one female improved in bodily health and mental state, one female in bodily health alone, and in 4 males and one female no effects were noticed; and in one female ill effects appeared.

*The Sixth.* Dementia. Consists of 5 cases, 2 males and 3 females, and of these I find that one female improved in both body and mind; one of each sex improved in bodily health alone, and in one of each sex no effects were noticed.

*The Seventh.* Congenital Imbecility. Consists of 7 cases— one male and 6 females—of whom I find that improvement in body and mind took place in one male and 2 females; improvement in bodily health alone in 2 females; and in 2 females no effects at all were noticed.

*Bad Effects.*—In two young lads pneumonia occurred while they were getting shower-baths. They had both weakened their systems by masturbation, and were doubtless specially

susceptible to the effects of cold. I may mention that they both recovered. In another youth bad headache was caused.

In the cases of four females certain bad effects were noticed. One had severe headaches after the bath, one caught an ordinary cold, and in one menorrhagia was markedly produced by the treatment. In one other case in which good otherwise resulted from the use of the bath, after it had been in use for a considerable time it began to cause menorrhagia. While mentioning the effect of the shower-bath in causing menorrhagia, I may also mention that in three cases in which this disorder existed to a marked extent before the baths were used, an entirely different effect was observed while they were in use, the catamenia becoming quite normal.

Such an occurrence as a patient fainting, or any bad effects other than those mentioned have not been observed.

4. *Age.*—Of the 51 males 8 were under 20 years of age, 8 between 20 and 25, 13 between 25 and 30, 7 between 30 and 35, 4 between 35 and 40, 4 between 40 and 50, and 7 between 50 and 60.

Of the 67 females, 12 were under 20 years of age, 15 between 20 and 25, 20 between 25 and 30, 3 between 30 and 35, 9 between 35 and 40, 4 between 40 and 50, and 4 between 50 and 60; nearly two-thirds of the number treated were under the age of 30.

The cases under the first heading—insanity of puberty, masturbation, hysterical mania, or some form of insanity referable to the sexual system—are so conspicuous to the eye of an asylum physician that I need not at all remark in any manner upon them, except to mention that they were usually put on this mode of treatment when their bodily vigour had been improved by good food and tonics, or when, after having recovered so far, their recovery seemed to hang fire, or when they had a relapse, for which there was no obvious reason.

Those under the second heading—puerperal cases—had for the most part improved much in bodily health, but from their remaining for a longer than usual time in the dull state in which the mental faculties are clouded, and the patients unaccountably wanting in nervous energy, recourse had been had to this as a general nervous stimulant. In two of the patients, however, the reverse of this state was present, they being continuously excited and dirty in habits.

In the cases under the headings *periodic and chronic mania* the patients were in fair bodily health. The most

marked feature in their cases was that of continuous excitement, lasting for a long period, and the subduing of this was what was expected.

The cases of melancholia were put on this treatment, other modes of treatment having proved of no avail.

In the treatment of the demented and imbeciles improvement in bodily health was mainly what was expected.

Before I leave this part of the subject I may state that I found in the 118 cases that hereditary predisposition existed in 74—viz., in 31 out of the 51 males, and in 43 out of the 67 females. This seems rather remarkable, and I do not attempt to explain it in any other way than by suggesting that where a hereditary neurosis with disordered mental functions exists the body is frequently in a well developed state, and that about half of the total number of cases laboured under forms of insanity which usually occur in young people, and that cases with an hereditary predisposition have a great tendency to be found under these forms of insanity.

*Immediate Effects.*—A shower-bath of half a minute's duration causes little effect apparently on a patient, more than a slight acceleration of breathing, and a feeling to the hand of momentary cooling of the surface of the body. I noted the state of the pulse as to its frequency and character in the cases of six patients who had for some time been taking shower-baths, immediately before the bath, immediately after, and a hour and a half after it, but before breakfast. The results were so unvarying that I deemed it unnecessary to repeat the observation on more than five occasions in each case.

I found that immediately after the bath there was a very considerable increase in the number of pulsations per minute, and that the pulse felt smaller and firmer; an hour and a half afterwards, the pulse was still quicker than it had been before the bath. I have on several occasions taken a shower-bath in the bath I have described, and in my opinion the effects of the shower-bath are greatly superior to those of the ordinary cold bath; the shock is greater, and also the reaction, and the feeling of muscular activity and exhilaration of spirits, which are experienced after a shower-bath and a vigorous rubbing down, are what many people would hardly believe until they had tried it. The precautions which I think ought to be observed in prescribing shower-baths are very simple. They are—

That patients for whom shower-baths are ordered should be

in tolerably good bodily health, free from cardiac or pulmonary disease; that the time in the bath should be very short at first, and I am of opinion that it should never exceed a minute; that the patient should be thoroughly well rubbed down after the bath; that the bath should be given by a person of intelligence, who can report as to its immediate effects—whether the patient felt the shock much, and whether reaction soon followed.

The conclusions that I consider myself warranted in drawing from the analysis of the above cases are—

That a gentle shower-bath every morning seems ~~exceed-~~ingly useful in the treatment of certain states of the nervous system connected with mental alienation, ~~more~~ especially the following:—

- 1st. ~~Puerperal mania~~ at the dull stage.
  - 2nd. Hysterical mania in young girls.
  - 3rd. A state somewhat similar to the above, seen in boys and young men, dependent on sexual causes.
  - 4th. In cases in which persistent excitement exists without organic cause.
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