

**THE USE AND VALUE OF
ARSENIC IN
THE TREATMENT OF
DISEASES OF THE SKIN**

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DISEASES OF THE SKIN.

BY
L. DUNCAN BULKLEY, A. M., M. D.,
PHYSICIAN TO THE SKIN DEPARTMENT, DERMIC DISPENSARY, NEW YORK; PERMANENT
MEMBER OF THE AMERICAN MEDICAL ASSOCIATION; FELLOW OF THE NEW
YORK ACADEMY OF MEDICINE; MEMBER OF THE NEW YORK COUNTY
MEDICAL AND DERMATOLOGICAL SOCIETIES, ETC.

LANE



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PREFACE.

THE following essay does not claim to be exhaustive; its aim is to present the subject of the therapeutical use and value of arsenic in diseases of the skin in a clear and practical manner, and to furnish the practitioner with evidence of its safety on the one hand and its utility on the other. It is hoped that, by pointing out where it is of service and in what diseases useless, the remedy may be prescribed in a more intelligent manner than is frequently the case, and that in the end, perhaps, less arsenic may be used, because its employment may be restricted to proper cases.

I think it right to state, in reference to the larger doses given in certain cases here reported, that the experience may be exceptional, and desire to warn any, especially laymen, against construing anything herein said into a warrant for an injudicious use of the mineral, for a remedy which is so potent for good is capable also of inflicting much evil. Under no consideration should arsenic be taken except under the immediate guidance of a medical man of experience.

This essay was read before the American Medical Association, June 7, 1876, and ordered to be printed in the Transactions: it appeared in the *NEW YORK MEDICAL JOURNAL*, for August, 1876, and is thence reprinted. It is presented in this form for convenience of reference, it being believed that many would desire it separate from the Transactions of

the Association. Should it be thought by some that I contradict anything in my essay before the same Association two years ago, on "The Management of Eczema," I will beg a careful study of this entire essay and also of that one; and, as a further caution against the misconstruction of what is contained in this, I will quote, as still true, in my opinion, the eighth and last proposition given in the summing up of the former essay: "Arsenic and zinc ointment, while serviceable in many instances, are so far from being specifics for eczema, that their use is injurious in many cases, while almost always other remedies will either suffice alone or greatly assist their action." The only qualification which two years' additional experience would lead me to make, is to say, "frequently" instead of "almost always," in the above sentence.

L. D. B.

NEW YORK, *September*, 1878.

ON THE USE AND VALUE OF ARSENIC
IN THE TREATMENT OF DISEASES OF
THE SKIN.

THERE is probably no empirical remedy in medicine better known or more frequently prescribed than is arsenic in the treatment of diseases of the skin, and yet I venture to say that there is no remedy whose action is so little understood, and withal whose effect is more uncertain, than is that of the same drug, as generally used ; for, when we consider diseases of the skin as a class, without any special reference to the individual case or the diagnosis, arsenic is not only useless in a very large share of the cases, but is very frequently absolutely harmful.

The subject has presented itself thus to my mind, because in my practice it has been very uncommon for me to meet with a patient, even with eruptions which have proved to be parasitic or syphilitic, who has been previously treated by general practitioners, who has not taken arsenic, and it is very commonly the failure of this supposed specific which has led the physician to seek the consultation.

Before speaking of the true value of arsenic in the treatment of any disease of the skin, I must, therefore, insist upon

the absolute necessity of accuracy in diagnosis as the very first step toward success in treatment; for affections of this great organ, the skin, are not a unit, as the practice of so many would seem to indicate, but they are more diversified than those of any other portions of the body, and require treatment as different as the pathological states and etiological factors are various. To prescribe arsenic, therefore, because the skin is affected, is as unwarranted as it is to seize upon any other empirical remedy, and to administer it in each and every disease to which any other special organ is subject.

I must be pardoned for dwelling thus upon what is a truism to many, for all will acknowledge that to a great majority of practitioners the exhibition of an eruption immediately suggests to the mind the idea of arsenic. It will be understood, therefore, that in my general remarks on the efficacy of arsenic in diseases of the skin, I refer not to the whole as a class, but to the special affections in which experience has shown it to be of service.

Popular opinion is never without some measure of support in truth, and the general medical impression of the value of arsenic, as an agent to modify changes in the skin, has foundations which it is not difficult to discern. It will be our task to examine these, to see how they have stood the test of time and experience, and to endeavor therefrom to furnish as definite and accurate indications as possible for our future guidance in the use of this drug.

Although now so generally known in connection with the treatment of diseases of the skin, the use of arsenic in this class of affections is not a gift of the ancients, indeed it dates back less than one hundred years, and those to whom its general introduction was principally due have passed away only within the memory of many now living, as Hunt, Emery, Bielt, and others. An essay on the action of arsenic would not be complete without the mention of the name of Girdlestone, who was almost the first to suggest its use in diseases of the skin; nor should the impetus given by Begbie's paper on the physiological effects of arsenic¹ be overlooked.

¹ *London Medical and Physical Journal*, March, 1806.

² *Edinburgh Medical Journal*, vol. lii., 1859, p. 961.

The very general use into which arsenic has come is attributable, I think, to three causes: first, to the very general desire which naturally exists in the minds of all to find some remedy which is a specific for a certain disease or class of diseases, the history of medicine being made up of successive attempts at finding specific remedies; second, to the physiological effects of the drug as observed in the coats of animals to whom it has been given, which, as is known, become sleek and glossy, and also in the clear skin of the arsenic-eaters of Styria, where the practice of consuming this drug as a condiment and stimulant has been verified by recent observation;¹ the third cause is, the very favorable reports which have been made from time to time as to the effects of arsenic in *certain* diseases of the skin, and inferentially it has come to be prescribed in almost all affections of this organ, partly from carelessness in diagnosis and partly in the vain hope that in some way or other, mysteriously unknown, it would modify the eruption.

That arsenic has a very decided effect upon the epithelial elements of the body there can be no question, both from physiological and therapeutical evidences; the silvery tongue after its long continuance, which results from the abundant growth of the epithelium obscuring the normal coloration, and its effects on the hairs of animals are instances of this, as also its therapeutic effects in scaly diseases of the skin. But it is also claimed and demonstrated pretty conclusively that arsenic influences greatly the circulatory system, as is shown by the increased feeling of warmth in patients taking it, and it is said to give increased strength and augmented frequency to the pulse; it is also well known that the first indication of the full physiological action of the drug is the congestion of the conjunctiva, and fullness about the face and eyes.

There is every reason, however, to believe that arsenic acts primarily through the nervous system, and that the changes induced in the skin and vascular system are secondary to this—an opinion which is shared by many, and which finds support in its very serviceable action in certain nervous diseases,

¹ Waring's "Practical Therapeutics," third American edition, Philadelphia, 1874, p. 107.

chorea, neuralgia, asthma, etc., and also in its effect in malarial disease. Those who have studied its action in diseases of the skin also agree that its results are obtained by virtue of its neuro-tonic principles. Dr. Albutt¹ says, "Arsenic in my hands has been certainly and regularly efficacious in those skin-diseases which on other grounds I referred, or was disposed to refer, to the class of cutaneous neuroses, while in other skin-affections it has been inert or injurious." Although I cannot subscribe wholly to this, I believe most firmly that the results from arsenic are obtained by virtue of its action on the nervous system, and I have elsewhere shown the very great dependence of many, if not all, skin-diseases upon structural or functional derangement of the nervous portion of our organism;² but I also believe in the value of arsenic as a general modifier of cutaneous nutrition, and, as will appear later, I regard it of the utmost service in many of the diseases of the integument, even where no nervous elements can be found.

It will be understood, of course, that arsenic acts through the medium of the blood; it is absorbed, enters the circulation, can be detected in the urine, and also is found in the viscera after death by poisoning from it.

With this much of introduction, let us proceed to consider what real value experience has shown arsenic to have in diseases of the skin. About this we will find not a little conflict of opinion: some, as the late Mr. Thomas Hunt, of London, a man of large experience with diseases of the skin, believe it to be all efficient, to be indeed almost the sole remedy in a large share of these affections, while others ignore it almost entirely or yield it only a very small place in the remedies they recommend to meet this class of diseases. The truth evidently lies between the two extremes, and, as it is seldom safe to accept any dictum in medicine, let us study the remedy before us cautiously and with a judgment based on what is known of its physiological action, and of the nature of the affections to be treated.

¹ *The Practitioner*, November, 1874, p. 323.

² "The Relations of the Nervous System to Diseases of the Skin." G. P. Putnam's Sons, 1875. Also *Chicago Journal of Nervous and Mental Diseases*, October, 1875.