

Bulkley, (L. D.) *alg*

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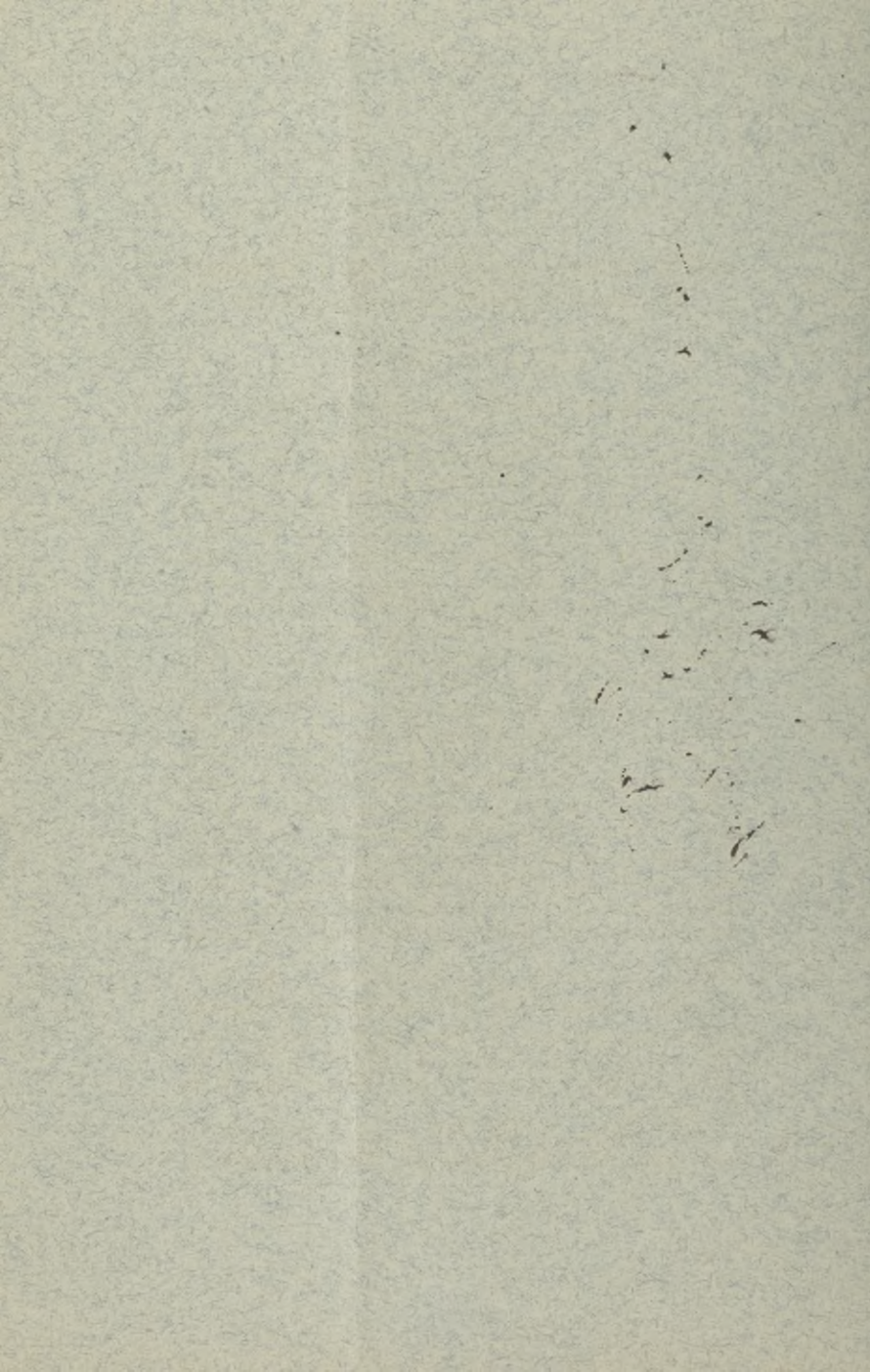
BY
L. DUNCAN BULKLEY, A.M., M.D.,
PHYSICIAN TO THE NEW YORK SKIN AND CANCER HOSPITAL, ETC.

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With the Compliments

J. L. Buckley M.D.

INFANT FEEDING, ESPECIALLY WITH REFERENCE
TO SUBJECTS WITH INFANTILE ECZEMA.

In the following simple and practical paper I do not intend or expect to present any very new or startling points in regard to the subject under consideration, nor have I any special food to advocate, and not even any single fixed method of feeding to propose or defend. I confess myself to be still a searcher after the best nourishment for, or rather after the best method of nourishing, the growing child, and especially one afflicted with infantile eczema. I have studied the subject many years, in hundreds or even thousands of cases, but believe that much may yet be learned, and that we by no means appreciate the greatness of the subject sufficiently, and feel certain that the majority of practitioners do not give it the attention it deserves; while I am perfectly sure that the laity are by no means aware of the importance of proper feeding, nor rightly acquainted with the principles involved. Certain am I, from experience, that the right principles are often most egregiously violated, even by those of more than ordinary intelligence, while among the poorer classes the ignorance and neglect of the matter is often appalling.

The present paper grew out of a discussion bearing upon "Infant Feeding" in the Children's Section of this Association at its meeting at New Orleans, two years ago, when, by vote of the Section, the writer was asked to prepare and present a paper on the subject.

In attempting to fulfil this request I shall not tax your time and patience with any scientific study of



the processes of digestion, nor shall I attempt any discussion of the various foods which are more or less favorably known; neither shall I enter the literature of the subject. The object of the paper is rather to introduce the topic for discussion, and to present the practical aspect of the case as it has developed itself in my observation clinically.

If we look in the text-books, either on Diseases of the Skin or on Diseases of Children, we find but little reference to the matter of diet in children with eczema, and only the most general directions given. Indeed, one of the best writers on Diseases of Children, Eustace Smith, says: "Too much importance, however, need not be attached to the subject of diet in the treatment of eczema." Now, while all agree that *too* much importance must not be attached to the element of diet, in the management of infantile eczema, experience has shown me most conclusively that in by far the larger share of cases far *too little* consideration is given to the subject, and that judicious directions in regard to the matter have not only aided greatly in curing a present attack, but have also sufficed to prevent its recurrence.

Much that will be said in connection with this subject is undoubtedly well-known to my hearers; indeed, much of it is no doubt self-evident to an intelligent observer; but I feel it necessary to treat the subject fully and plainly, because, however intelligent parents and nurses may be in other matters, it seems impossible for them, oftentimes, to exercise the slightest common sense or judgment when it comes to the matter of what shall enter the infant's mouth. Much that will be said in regard to those affected with eczema applies equally well to infants with other diseases, or, indeed, to those in supposed health, but is none the less necessary and important in the present connection.

I find that it is almost useless to simply direct the attendants on infants that the diet shall be plain and

nutritious, or to say that the diet must be restricted, or that the infant requires more nourishing food. In the majority of cases this really means nothing, either on account of the ignorance or carelessness of the mother or nurse; often they may desire most earnestly to aid the physician, but, having no knowledge of the physiological processes of digestion, or of the relative value of foods, or indeed, of the end to be accomplished, and being generally guided by the advice of the persons with whom they come in contact, nurses and others, it often results that they are about as far from right as it is possible to be, unless particularly instructed by the medical attendant.

In dealing with a case, therefore, it is necessary to give both negative and positive instructions, to define clearly both what and how the child shall *not* eat and drink, and how the feeding shall be carried on—in many cases the former is even more important than the latter.

I do not wish to offend my audience by the very simple and homely matters presented, but I have seen, both among the poor and even among those in the higher walks of life, such gross errors in regard to either what was given to children or what they were allowed to have, that I cannot forbear mentioning some of the articles in this connection. I have seen even very young infants with candy, even of the worst kinds, cakes of all varieties, cheese, apples, oranges, bananas and other fruits. Recently a babe 6 months old, covered with eczema, was brought to me, biting lustily on and having eaten half of an orange, devouring the skin and all. Once I found a pickle in an infant's hand, while it is most common to see crackers, even of the most indigestible varieties, given to infants, "just to keep them still," as the mother will say. Careful inquiry will elicit the fact in a considerable proportion of cases of infantile eczema, that the little patients get more or less tea and coffee, the attendant often saying that the infant is

exceedingly fond of tea, while occasionally have I found that they were also given beer.

It is not at all uncommon, in going carefully over the history of infants with eczema, to find that the patient is accustomed, even during the first year of its life, often when but a few months old, to take some of the food of adults, eating, as the mother will say, a taste of everything on the table; and when closely questioned it will sometimes be found that this may include even pies, and the most indigestible articles. So commonly have I found this to be the case that I now always investigate the matter, and frequently I have refused to treat the patient unless a promise is given that the child shall not come into the room while the food of the family is on the table.

While these gross errors in infant feeding are, of course, much more common among the poorer and more ignorant classes seen in dispensaries and hospitals, they also occur in the better classes, even in those where it would be least expected, as I have observed time and again. And even at the risk of being thought unnecessarily minute and perhaps commonplace in my treatment of the subject, I must emphasize the fact that, for the thoroughly successful management of infants with eczema, the diet must be most carefully investigated and watched, so that the physician shall be sure that the little patient takes only the articles directed.

It would hardly seem necessary to mention such a matter as regularity of feeding. But unless this is attended to errors may occur, and I have frequently seen infants where too frequent nursing seemed to be an element in keeping up the digestive disorder which was at the bottom of the eczema; the child is too often given the breast each time it cries on account of the itching of the eruption, and thus the disease aids in perpetuating itself. I have also often seen bread, if not a more harmful article, given for the same purpose. Efficient local treatment which

allays the irritation may, therefore, have more than a purely local action, when it allows the infant to sleep without the constant application to the breast.

Having now made certain that the infant will receive nothing but the nourishment intended, it is necessary for the physician to give particular and specific directions in regard to this latter, and often to inquire most carefully into the matter, in order that there may be a perfect understanding in regard to every detail of nourishment.

Even when the infant is nursing there may often be some necessity of care and attention. As already mentioned, the breast should not be given too often, nor too seldom, nor at irregular intervals. The child may also undoubtedly be affected by the condition of the mother, and by what she eats and drinks. Often a case of eczema will be benefited by improving the health of the mother in many respects, for frequently eczema is dependent upon poor nourishment, and the anæmic, dyspeptic, constipated mother cannot furnish perfect milk. I almost always give a bitter tonic with acetate of potassium to a nursing mother with an eczematous child, and am very careful in regard to the condition of the mother's bowels. Other mothers need iron, hypophosphites, malt, or cod-liver oil, while very frequently it is necessary to give careful attention to the diet of the mother.

Many nursing mothers are in the habit of taking large quantities of tea; others take beer, or chocolate, with the idea of aiding in the secretion of milk. All of these I believe to be more or less injurious to the nursing infant with eczema, and are forbidden. If properly taken, milk affords the best means from which the human milk can be secreted, and there are few who cannot take it with benefit, both to themselves and their nursing infants, if due care be exercised in its administration.

The first point which I emphasize is that the milk should never be taken at the meals, nor in connec-

tion with any other substance whatever, nor when the stomach contains any food, or remains of food. It is best taken pure and alone, as a drink, and preferably at the temperature of the body, never iced, when the stomach is empty, presumably about three hours after a light meal, and four hours or more after a more hearty meal. Thus, my constant direction is that nursing mothers should take milk, say about an hour before each meal, and then also during the night if awake, beginning not earlier than about 11 o'clock. A quart or two of milk can thus be taken with comparative ease, and its effects appear in the mother and child often in a very striking manner. If the milk seems to sour at all on the stomach I frequently have a few drops of liquor potassæ, 10 or 15, or a little bicarbonate of soda, added to each tumblerful.

The idea of giving the milk thus on an empty stomach is that it may enter the system, if possible, without passing through the process of curdling and digesting in the stomach. When given during the interval and after stomach digestion is finished, the supposition is that the alkaline milk, received into the stomach when this is slightly alkaline, as it is at this time, enters the absorbents at once and mingles with the blood current, as we know it can when injected into a vein. It is to be remembered that under the microscope milk globules and those of chyle are hardly distinguishable, and as the blood current is alkaline there is no reason why milk taken in this manner, and entering the lacteals undigested, may not mingle at once with the mass of blood, as does the chyle and as does also the milk when administered in transfusion. The addition of an alkali renders this more easy and certain, and when the stomach and mouth seem acid, a little alkali taken in water, quarter of an hour before the milk, serves to counteract this acidity, and prevents the milk from becoming curdled by any remaining acid.

The reason of abstaining from food in connection

with milk is found in the fact that the gastric juice necessary for the digestion of even the smallest amount of substance other than the milk would curdle the milk, thus requiring a complete digestion of the entire quantity.

The proof of the theory that there is some special mode in which milk acts when taken thus alone on an empty stomach, and with the assistance of an alkali when necessary, is found in the clinical experience which has attended a large number of cases in whom this plan has been practiced. Many patients who before had been unable to take milk, because it excited in them the so-called "bilious" condition, find that they can take it not only with impunity in this way, but with the greatest benefit. Another proof is found in the feelings experienced shortly after thus drinking milk, which is often described as one of not only immediate refreshment, but even of exhilaration, which has been likened to that of taking liquor, and many patients, both nursing mothers and others, have repeatedly expressed to me their satisfaction at the success of what seemed to them at first a doubtful experiment.

I trust this somewhat lengthy digression will be pardoned, as in reality it has a very decided bearing upon the subject under discussion; because, I believe that by this means of taking milk many infants can be well nourished on the breast alone who otherwise would either be poorly nourished by it, or would have other food given as supplemental, which would certainly not be as efficient as a full supply of healthy breast milk, such as has been provided by nature for the purpose.

In the case of small infants with eczema where breast milk is not obtainable, there is a wide field for discussion in regard to the best mode of nourishment, which can hardly be touched upon within the limits of this paper. All are more or less familiar with the various artificial foods which have been presented to

the profession, and which have each received their advocates, and undoubtedly have each their merits. Among the most prominent of these may be mentioned Mellin's, Horlick's, Nestlé's, Ridge's, Carnrick's, Savory and Moore's, and what is known as lactated food; each of these and others are claimed by their proprietors as offering the most perfect solution of this most difficult problem, as to what is the best nourishment for the infant deprived of its normal supply—and yet the experience of all must have answered that as yet no perfect substitute has been found, and that indeed there probably never can be found any substance other than mother's milk which will suit every case.

Undoubtedly the substance most like human milk is that from animals, and I have to declare my decided preference to this Nature's substitute above all those which have been artificially prepared with a view to represent, or to efficiently take the place of, milk from the human breast; and I have further to express my conviction that many more infants can take and thrive on cow's milk, when properly administered, than is commonly supposed, and my belief that these prepared foods are substituted for milk very frequently to the great disadvantage of the child.

I will not occupy time in entering here into details which are familiar to all in regard to the preparation of milk for infants of different ages and conditions. Suffice it to say, that special directions should be given in all cases where there is evidence of poor nourishment, and especially where eczema is present.

As is well known, cow's milk does not represent human milk exactly, and often requires treatment to suit individual cases, different ages, etc. The large proportion of casein in it often renders it difficult of assimilation, and commonly it will require dilution for younger children, while the proportion of fatty matter can be conveniently increased by using the upper third of milk which has stood 2 to 4 hours, a

little sugar of milk and salt being added to bring up these ingredients to the proportion found in human milk. It is hardly necessary to discuss further details in this direction, thus much is mentioned merely to qualify the claim that cow's milk is of universal service for young infants. In some cases cow's milk can only be tolerated when it has undergone the process known as peptonizing, when it will then seem to afford the most perfect nourishment desired.

In young infants with eczema, where the nourishment seems defective the greatest gain may sometimes be had from the addition of the yolk of an egg to the dietary. This may be given once daily, either raw, or lightly cooked, as poached or boiled, either alone or in connection with other food; the white of egg is not desirable, and should not be given. Cream also is often called for, and these will often be found to more than take the place of cod-liver oil, which, however, is likewise most serviceable in many cases of strumous habit.

I have not mentioned the use of barley-water in connection with the administration of milk because personally I am not in the habit of ordering it much, although it is recommended on high authority and is widely employed. In certain cases it acts well in the way of preventing the formation of too solid a curd, and undoubtedly the small amount of nutriment furnished by the barley may be of value. Gum arabic water will sometimes prove of service when added to milk, and possibly acts in the same manner.

I will not dwell upon the subject of the use of condensed and preserved milk, except to record my approval of them commonly in preference to many of the prepared foods such as have been already alluded to. While fresh milk is to be preferred where accessible, there are many occasions where these preparations of consolidated milk serve the purpose admirably well when properly diluted, and at times

will seem to suit particular cases even better than fresh milk.

I wish to call attention to the value of wheat products as an element in the nutrition of infants with eczema, as well as in those of older years. Even quite young infants will be benefited greatly by the addition of crushed wheat to to their dietary, prepared as follows: The wheat is well boiled, and then left to stand all night, and again boiled thoroughly in the morning, the second time. It is then put in a fine sieve and water added to it, and it is rubbed until most of it passes through, leaving the hard and husky parts behind. This may then be given in a fluid state, either mixed with water, sweetened and salted, or with milk; or it may be eaten as a mush. In this manner the nutrient portion of the wheat is dissolved by the repeated cooking, and the phosphates and gluten are extracted with the starch, all in a very assimilable form, and are separated from the harder, indigestible portions, which often pass undigested and may do harm. Wheat given in this way furnishes, I believe, about the most perfect nourishment for the growing child, and with milk supplies all that can be desired. It is slightly laxative, and I have seen many cases of constipation overcome by its use.

Coming to older children, that is those between 1 and 3 years of age, when the teeth are pretty well out, it is often most difficult to regulate the diet in such a way that it shall minister to health or recovery from sickness, and it will often require the greatest watchfulness on the part of the physician to prevent the little eczema patient from being made worse by dietary indiscretions. The cereals should be given in increasing proportion, preference being given to preparations of wheat, rather than oat-meal, which will frequently be observed to increase an eruption. Bread made from whole wheat flour should be encouraged, eaten with plenty of butter, which improves

these cases, especially if they are under an alkali medication. Meat juice may also be given in moderation, but care should be exercised that it is not taken in excess, as there is danger of over stimulation, and I have repeatedly seen bad results from excessive use of beef-tea and animal food in these cases.

As the teeth are formed the diet must of course be more varied and more freedom must be given, and parents will often think children ill-nourished if they are not allowed a great variety, indeed if they do not take the food of adults. But the prodigious mortality from bowel troubles among children under 5 years of age reminds us that much knowledge is yet needed before those having the care of the young shall rightly attend to the diet. If life can be thus endangered, the same or other errors in lesser degree must affect the state of the child both in health and disease.

I will not take time to discuss more fully our interesting subject, or to enter upon more details in regard to the many possible matters in regard to diet which might be spoken of—they could readily fill a large book. Enough has been said to introduce the topic for discussion and to present the points which experience has shown me to be of importance in connection with our subject; briefly mentioned these are as follows:

1. The necessity of carefully watching the diet of infants with eczema, and giving special instructions that harmful articles may be avoided.
2. Specific instructions in regard to food and its preparation for these cases.
3. The more free use of milk, both for nursing mothers and for infants deprived of breast milk.
4. The taking of milk by adults apart from all other food in the interval before meals, when an al-

kaline state of the stomach facilitates its immediate absorption.

5. The more free employment of wheat products in the nourishment of older children with infantile eczema.

