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GASTRO-INTESTINAL DISORDERS
OF INFANCY.

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(CHILDREN'S WARD).



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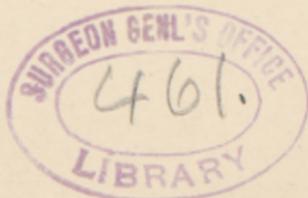
**ACUTE ALCOHOLIC INTOXICATION IN INFANTS,
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THE influence of alcohol and alcoholic drinks upon the organism of infants and children has been forcibly brought to the notice of the profession in an address of Professor Demme, of Berne. In this small brochure, which at first received much notice (1891) in the medical press, the influence of alcohol and its congeners was forcibly pointed out. It is surprising how little influence this work has had among physicians. The infant and child are peculiarly susceptible to alcohol, and its effects in both the acute and chronic phases have been well pictured by Demme. In the care of a very large infant and children's dispensary clientèle I have noticed, during the summer months, and for the past few years called attention to the very large number of infants suffering from acute or subacute gastro-intestinal disease that are the victims of an unrestrained administration of solutions of whiskey or brandy. The parents of these infants are directed



by their physicians or sanitary advisers to give the little patients minimal quantities of brandy or whiskey at stated or indefinite intervals. The mothers, in their helpless ignorance, overdose their children, adding the condition of alcoholic stupor to the weakness resulting from the effects of illness. It is an every-day experience in the heated term for me to be brought face to face with an infant very ill with cholera infantum, acute gastro-enteritis, or even simple diarrhoea, which is nursing a warmed solution of a teaspoonful or more of brandy or whiskey, or gin, to half of a nursing bottle of tea or spiced water. Such infants are given these solutions for hours *continuously*. The mothers declare that it is the only thing the little patients will retain. This punch, for such it really is, stupefies the babe; it quiets the little sufferer, and lulls the mother into a false notion of improvement of the severe illness. At the outset, it must be remembered that these little patients bear alcohol as badly as they do opium. It may prove interesting to describe the condition of some of these infants as they come to me.

An infant or child that has had more alcohol than is wholesome for it will, in the primary stage of intoxication, act in a very peevish manner. From a good-natured infant, the mother tells you, it has degenerated into a crying sufferer; it throws its arms and head from side to side, refuses to be comforted, and will even strike itself or its parent. It will try to leave the mother's arms, and then again will wish to return. In other words, the child or infant is over-restless, but not at all in the manner of

children or infants that are simply sick. Looking at the features, we detect a dull, blank expression, very much like that seen in the intoxicated adult. Again, the eyes may be large and brilliant, or vacant and presenting a stare. Some infants sit up in the arms of the mother ; they are weak and worn out by their illness, and during a respite from their symptoms they desire to play. If too much alcohol has been administered, however, there is a typical helplessness in the weak attempts at play. The brilliant and vacant eyes give the little ones an indefinitely quizzical expression.

In a more advanced stage of intoxication the infants present the signs of an unconquerable stupor. In spite of pains or movements they are actually soporose. They no longer notice their surroundings. At intervals, when the pains of colic are great, the infant may cry out.

That the use of alcohol among all classes is quite common in diarrheal disturbances there can be little doubt. The highest authorities seem to sanction this use. It is not surprising, therefore, that the abuse of a good remedy has become so flagrant that we must question whether the harm produced in allowing the use of alcoholics by the laity in a general way does not far outweigh any temporary benefits. If the doctor himself, or nurse, or among the poor the district nurse, could personally administer the remedy, some good might accrue ; but even here I think the good in gastro-intestinal disorders can only be temporary.

Let us view this question from another standpoint. The infant, or even adolescent organism, is very

susceptible to the effects of alcoholic drinks. Demme says that in his experience a dram of whiskey produced acute intoxication in a boy of fifteen years. I have now on my list of private patients a little friend of twelve years in whom a full hysterical attack, with its varied modifications, can be developed by a very small glass of sherry wine. Demme says that cognac, as used by the poor, contains 55 per cent. of alcohol; whiskey from 45 to 50 per cent.; wines from 8 to 10 per cent.; malaga or port, so much in use among children, 28 per cent. of alcohol. Bartholow says that the average sherry contains thirty-nine parts by weight of alcohol. According to Lehmann, the German wines only contain as high as 12 per cent. of alcohol. These figures are given in answer to the invariable and careless question put to us as to how much alcohol, if any, is contained in the so called "*few drops*"? of brandy or whiskey. My studies in infant-feeding have convinced me that alcoholics, as they are administered to infants to-day, are a source of great harm in the treatment of disturbances of the stomach and intestinal functions. Small quantities, and these cannot be exactly gauged, may stimulate the functions of the stomach at first. Nausea and vomiting seem to be checked at the outset by small quantities of ice and brandy. This effect, which, in my experience, is always transient in infants, is succeeded by vomiting, which is uncontrollable and more serious than that which had ushered in the illness, to be followed by symptoms of intoxication. Mothers constantly corroborate these views of mine. Demme, quoting from Kretschy, says that small doses

of dilute alcohol stimulate the production of the stomach-juices. Larger doses, or doses taken during the period of digestion, disturb and retard the stomach-digestion, or even temporarily suspend it. The same writer says that the customary addition of from one-half to one teaspoonful of cognac to the milk of children, when given for a time, as is customary among the laity, disturbs the processes of digestion. It causes chronic irritation of the stomach and dyspepsia.

During the past few years I actually have avoided, or, if necessary, forbidden, the use of all alcoholics in the treatment of the acute gastro-intestinal disorders of infancy. This rule, universal as it has been in my practice, has convinced me, through the very satisfactory results obtained, that there can be no excuse for the use of alcohol in these cases.

It is only recently that I horrified the family of a physician whose infant was mortally ill with acute gastro-enteritis. The little infant, seven months old, was as sick as it was possible for such an infant to be. It was bottle-fed, and in midsummer had been attacked by acute gastro-enteritis. It had lost five pounds in one week, and, when I saw it, was living principally upon whiskey. It was stupid with whiskey, soporose, throwing its head from side to side when distressed, the features blank, without expression to the eyes, and moreover with constant vomiting of the food. In conjunction with other modes of treatment the whiskey was immediately stopped, much against the family's wishes. The little patient recovered without another drop of alcohol, in spite of the attendant's misgivings.

This case is mentioned as one in which I am certain that my ideas were followed out; also as an instance of one of the sickest infants I have ever seen recover.

I have washed out the stomachs of infants, and the fluid thus evacuated smelled strongly of brandy administered by the mother to excess. The physician had ordered it. As already asserted, I never use brandy or whiskey in any form in the acute stages of gastro-intestinal disease. It is not physiologically correct to do so. If the gastric functions are disordered, if the acidity is reduced, and as in severe cases even the enzyme is not produced in its normal quantity, alcohol administered as described only makes the diseased state worse. Epstein in his almost classic paper on the nature and treatment of cholera infantum (Hench's *Festschrift*, 1891) calls attention to the harmful use of alcoholic solutions or wine at the outset of the disease, the marked tendency of these cases to alcoholic intoxication, and the similarity of some signs of this intoxication to those of true cholera infantum. He also has found wine in large quantities in the atonic stomachs of such infants in whom there is gastric atony to a marked degree.

The two arguments in favor of alcohol that have been used at times when the stomach-digestion of infants was less understood than it is to-day are: First, that the stomach-juices should be stimulated; and, second, that we should try to foster the strength and support the heart of the little patient.

To-day the most approved method of treating an infantile stomach suffering from transient or acute disturbance is not to stimulate its functions, but to

give the organ complete rest. Food is absolutely interdicted, especially such food, like milk, as is bulky and leaves a residue. The stomach is washed out (Epstein). The infant is placed upon solutions of egg-albumin for at least twenty-four hours. The best results are thus obtained by waiting for a restoration of the gastric functions. After twenty-four hours, if we find the stomach tolerant, and active symptoms have subsided, we still abstain from foods that leave residues, and give beef-juices, and gradually return to a milk-diet after all danger of gastric irritability has passed. If there is a condition of reduced acidity of the stomach we must supply the want in the shape of minute doses of dilute hydrochloric acid. If the failing strength of the patient should demand it in cholera infantum we can replace alcohol with much greater safety to the patient by the use of spartein, from $\frac{1}{64}$ to $\frac{1}{32}$ grain, every few hours, or $\frac{1}{5000}$ grain of strychnin if collapse threatens to set in. Minimal doses of strophanthus and digitalis ($\frac{1}{2}$ minim of the combined tinctures every three hours) will act very satisfactorily and for a longer period of time. Camphor is very disagreeable, and therefore should not be given; the same applies to musk.

My argument thus warns against the use of alcohol as rather aggravating the conditions it is intended to relieve.

It has not been the object of this short paper to exhaust the subject of alcoholism in infants and children. I also believe with Demme that it would be deplorable should the abuse of alcohol carry with a suspension of its use at the

bedside of the infant. With Demme, Binz, and Jaksch, we must all recognize the great utility of alcohol as a cardiac stimulant in diphtheria, scarlet fever, measles, erysipelas, and typhus fever. But it is here my primary object to call attention to the abuse of alcoholic drinks in the acute gastrointestinal disorders of infancy, and also to show how the very large number of cases coming yearly under my care have been successfully and conscientiously treated absolutely without the aid of alcohol in any form.

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