the patient from taking exercise and the bad general health precludes any attempt at dieting. It is waste of breath to tell a patient with arthritis affecting the feet to take efficient exercise. It cannot be done unless he is first assisted in some other way. Such a patient can, by means of vaccine treatment, be got into a far more active state. The same remark applies in a less degree to massage, faradic baths, and cataphoresis; vaccine treatment, however, goes more to the root of the disease, and in my experience has proved the more powerful ally.

I have inoculated myself between forty-five and fifty times, always using a vaccine from my own organism. The ordinary doses of staphylococcus vaccine proved far too large. A dose of 300 millions would cause an increase of joint pains during the day and continual cramps at night which might last for three weeks; small doses, on the other hand, produced a great improvement, and at one time led to the increase of a stone in weight in the course of three months. In order to bring about a cure of any permanency, I regard attention to the alimentary canal as essential.

While the patient is in an obviously low state of health, nothing much can be done in the way of cutting off any articles of diet. As he gets stronger, however, the starchy materials can with advantage be cut down and replaced by milk and hydrocarbons. Much can be done by long courses of water drinking. In theory it would appear a most reasonable procedure to wash out an unhealthy alimentary tract in this way, and in practice one certainly is not disappointed. The only possible objection which could be raised is the danger of exhausting the patient by over-vigorous purging. As a matter of fact, the Llandrindod Wells saline waters do not have a powerfully purging effect. As a rule, two or three glasses before breakfast act as a mild laxative. Individuals differ much in this respect, and it is a matter which must be suited to each one.

I trust that these remarks may help others in elucidating the mysteries of this troublesome complaint. I have attempted during the time that I have been closely associated with it to be a careful but impartial observer, and have neglected those symptoms which have not been constantly repeated. The explanation which I have given is the one which seems to fit most easily into the history of the case, and the treatment suggested has led to a more favourable result than falls to the lot of many arthritic individuals.

A SERIES OF CASES OF CATARRHAL JAUNDICE OCCURRING IN EPIDEMIC FORM.

BY

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THESE cases, eight in number, occurred in an institution where some 2,000 children, of ages varying from a few months up to 16 years, are cared for. These children all live under identically similar conditions as regards food, clothing, habits of life, and so on, but they are divided amongst five houses, which are practically independent of one another. All the cases occurred in one only of these houses. Moreover, the house in which the outbreak took place contains two departments, a girls' and an infants' department, the latter consisting of girls under 9. These two departments, though not absolutely separate, mix very little. These cases were confined to this infants' department, the only patient of more than 9 years of age being a girl of 16, who helps in looking after the smaller children.

There was nothing remarkable about the disease. It consisted of an attack of obstructive jaundice (that is, tingeing of the skin, conjunctiva, and urine, and absence of bile from the stools), a variable degree of fever, some feeling of malaise, and in three cases enlargement of the liver, without, however, any tenderness. In two of the cases jaundice was not present to the full extent—that is, there was no change in the colour of the urine and stools. There was no history of antecedent gastro-intestinal trouble.

Appended is an analysis of the cases, with the dates of admission to and discharge from the infirmary. The cases as soon as they occurred were removed from the department to the infirmary, where, with the usual treatment, they soon recovered. They were discharged when all trace of jaundice had disappeared and they were quite well in themselves. The interesting point about the series is that the fact of its being limited to one department only—no other cases occurred in the rest of the institution all through the summer—suggests that the disease was probably infectious. Moreover, it will be noted in the table that the cases occurred in five groups. Between the first case and the next two an interval of thirteen days elapsed. Between the discharge of numbers 1 and 2 and the occurrence of numbers 4 and 5, nineteen and sixteen days respectively passed, number 3 still being in the infirmary. Between the discharge of numbers 4 and 5 and the appearance of numbers 6 and 7, eighteen and fourteen days respectively elapsed. Between the discharge of the last of these and the occurrence of the last case there was an interval of fifty days.

Analysis of Cases, with Dates of Occurrence and of Discharge from the Infirmary.

No. of Case.	Date of Admission.	Date of Discharge.	No. of Days Isolated.	Highest Temperature.	Extent of Jaundice.	Symptoms.	Enlargement of Liver.
1	May 5	May 23	18	Normal	Full	Malaise	Nil
2	May 18	May 26	8	Normal	Skin and conj. only	Malaise	Nil
3	May 19	June 17	29	100°	Full	Malaise	Nil
4	June 11	June 23	12	99°	Full	None	3 in. below costal margin
5	June 13	June 27	14	100°	Full except urine	None	Nil
6	July 11	July 25	14	101°	Full	Malaise, vomiting	Nil
7	July 11	July 28	17	99°	Full	Malaise	1 in. below costal margin
8	Sept. 16	Oct. 7	21	100°	Full	Malaise	2 in. below costal margin

From a consideration of this series it would seem that some of the cases were still infectious when discharged from the infirmary, and that they went down and infected other children in the department; and the length of the intervals suggests that the incubation period of the disease is between fourteen and twenty-one days, probably nearer the former. This suggestion is not supported by the last case, however; but this long interval might be explained on the hypothesis that a very mild case was missed, which, considering the mildness of some of the attacks, might well have happened.

Numerous epidemics of jaundice have been recorded. Hennig¹ reviews some 86, and others have been reported since. The majority of cases have been benign, like those in this epidemic, but some have been of the more severe type described by Weil and associated with his name. In cases where an incubation period has been mentioned it has been given as varying from a few days to several months.

Most writers have thought there was no evidence of case-to-case infection in their epidemics, and have been able to trace the origin of the disease to bad food or such things as exposure to cold and wet. None of these causes can be assigned here, however, and the history of the little outbreak is strikingly analogous to that of an epidemic of low virulence of one of the ordinary infectious diseases as they occur in this institution.

REFERENCE.

¹ V. Quincke and Hoppe-Seyler, *Nothnagel's Practice*, "Diseases of the Liver," p. 501.

THE thirty-third Congress of Balneology will be held at Berlin in March, 1912, under the presidency of Professor Brieger. All communications relative to the congress should be addressed to the General Secretary of the Balneological Society, Geh. San.-Rat Dr. Brock, Thomiasstrasse 24, Berlin.

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