MEASLES IN A PUBLIC SCHOOL

BY

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Epidemics of measles and reports concerning them are not, as a rule, of interest, except to those immediately concerned, but the small epidemic recorded here presents some unusual features. The following is the case incidence:

Case	House	Form	First Symptom	Admitted	Incubation (days)	Source of Infection
Ya.	M.	Vb	May 3	May 3	?	?
Fl.	M.	LV1	" 18	" 18	15	Ya.
Th.	M.	LM1a	" 18	" 20	15	Ya.
Me.	B.	LM1a	June 3	June 3	13	Th.
Fr.	T.	MVa	" 6	" 9	18	Th.
Wi.	B.	LM1a	" 7	" 9	19	Th.
Ca.	L.	LM1b	" 7	" 8	19	Th.
T-D.	B.	LM1a	" 8	" 9	20	Th.
De-R.	Bat.	UMb	" 8	" 10	20	Th.
Wc.	Tr.	LM1a	" 16	" 16	10	Ca.
Po.	Law.	UMb	" 20	" 20	10	De-R.
Cn.	Bat.	LM1b	" 23	" 25	13	De-R.
Met.	Ed.	UIV	" 27	" 27	17	De-R.
Da.	B.	UMb	" 26	" 28	5 or 17 or 18	Po or De-R or Wi.

The points of interest are the smallness of the epidemic, and the very long incubation period.

In a school of 530 pupils 115 were not protected by a previous attack; normally between 90 and 100 might have been expected to develop the disease, compared with 14 who actually did.

The long incubation period is unique in my experience. The average period of incubation, leaving out that of the first case, which is unknown, and that of the last, which is doubtful, was very nearly sixteen days; in six cases the period was between seventeen and twenty days.

Clinical Symptoms

The cases were definite measles of a mild character, not rubella. Prodromal symptoms appeared in four cases in less than twenty-four hours, in three one day, in six in two days, and in one in three days. Fever lasted for two days in six cases, for three days in five, for four days in one, and for six days in two, the maximum recorded being 104° and the minimum 101°. Conjunctivitis was marked in all cases. Catarrh was present in five cases, absent in nine. Complications included two cases of vomiting, one of epistaxis, and one of adenitis. Rash was very well marked in all cases, but in my opinion no stress can be laid on this, as the rashes of measles and rubella can be, and often are, exactly alike. Koplik's spots were present in all cases, profuse in four, well marked in five, and slight but definite in five. The prodromal symptoms were so slight that all patients, except Fl., when first seen, had a commencing rash and definite Koplik's spots.

Infection Described

The first patient (Ya.) was admitted early on the morning of May 3rd, 1930, the pupils having returned the night before. This boy had been seen by me the previous evening, on account of tinea cruris, and appeared to be perfectly well. Twelve hours later he returned with a well-marked rash and profuse Koplik's spots and fever.

As there seemed to be an unusually favourable chance of preventing the spread of measles, I sent away all the boys with whom Ya. had been in contact and who had not had measles previously, for ten days, from the sixth to the sixteenth day after exposure, and took the temperature of all the boys in his house who had not had measles. As far as he knew, he had not seen them during the twelve hours, between 8 p.m. and 8 a.m., but on the evening of the sixteenth day, both Fl. and Th. felt unwell. Fl. did no damage, but Th., who stayed in school for another thirty-six hours, infected others, as indicated in the table.

I did not regret that my efforts to prevent the spread had failed, because I consider from a strictly medical point of view that measles in the summer term is to be welcomed. The general mildness of the cases is attributable to the character of the disease, the excellent weather, and the small amount of infection, which enabled each patient to be nursed in a large separate room.

Five weeks later, on the last day of the term, a boy developed measles on arriving home, though he had been inspected by me that morning for mumps, which was epidemic at the end of the term. Through him, thirty-two other cases were recorded during the holidays, but it is impossible to relate this outbreak with its predecessor.

Observation

The only observation I have to make is that either Koplik's spots are *not* the absolute diagnostic sign of measles, as is generally held, or that under certain conditions the incubation period of measles may exceed a maximum of sixteen days.

Memoranda

MEDICAL, SURGICAL, OBSTETRICAL

DERMATITIS CONSEQUENT ON THE
APPLICATION OF IODINE

The case of fatal dermatitis following the use of iodine spirit solution, reported by Mr. R. Charles Alexander in the *Journal* of July 19th, 1930 (p. 100), prompts me to relate a somewhat similar case which came under my care.

A fruit merchant, aged 60, had occasion to empty and clean a blocked drain, which took him several hours to accomplish. Both his arms were immersed in the contents of the drain pipe, with the result that they were swollen, the skin having become sodden with the prolonged immersion. He took care to wash his arms thoroughly and often with plenty of warm water and soap, which gave him a sensation similar to that of a shampoo, a very cooling and pleasant effect. Later he thought it would be an excellent thing to paint his arms with iodine tincture; the effect of this a few hours later was of a warm tingling nature. The following night he suffered from intense itching, and came to see me next morning.

Both his arms were acutely inflamed and swollen; they were covered with vesicles turning into pustules, and were extremely painful. His temperature was 103° F., and owing to the swollen condition of his wrists I counted his pulse from the facial artery. He appeared ill, restless, very weak, and toxic. I applied starch poultices to both arms, and ordered a stimulating diet. Four hours later, as he was still in great pain, I removed the poultices, and washed the starch off with a solution of sodium bicarbonate, which gave him much relief, to the extent that he implored me to continue the treatment; later on linimentum calcis with calamine was applied on lint, and this was repeated every four hours, alternating with the bicarbonate washing. His general condition was by next day much improved, the temperature having fallen to normal, and the swelling in the arms having diminished, but the area of pyoderma was still very marked; the bullae were cut away as