sheet business, and the supply of disinfectants which have been so lavishly distributed (perhaps in ginger beer bottles) by the sanitary inspector may not be shortly dispensed with, when one day, the child becomes obviously ill again: he shivers, his temperature is 103 or more, he alarms his parents by the passage of dark coloured urine, and, for some days, is acutely ill: his convalescence is a matter of weeks, or, on the other hand, he may die in a day or two of suppression of urine. In the endeavours made by the parents to account for this relapse, the most natural explanation, namely, that the child has, in some way, caught cold, is almost invariably accepted.

Nor is this explanation altogether confined to the laity. I remember well that in a certain isolation hospital, when a patient had an attack of nephritis while convalescent, it was quite the custom for the dearest friends of the nurse in charge of the ward to attribute the incident to her having allowed the patient to catch cold. This was quite pardonable, inasmuch as the teaching of that time laid stress on two points only, one that nephritis was due to exposure to cold, and also that this might be usually prevented by keeping the patient in bed for three weeks, whether he felt ill or not.

Perhaps the first nail in the coffin of this teaching was a very interesting fact that was noticed some years ago, when a certain new isolation hospital was opened. Previously the old hospital had been unable to take in all the cases of scarlet fever as they arose, and consequently the majority of patients were admitted late in the course of the illness—about the tenth day or so, as a rule. The percentage of nephritis in the hospital was then very high. When the new building appeared, the strain on the old one was relieved, and patients began to arrive there earlier. At once the amount of nephritis fell considerably. Meanwhile no change had been made either in the staff or the methods at the old hospital; consequently the idea that catching cold, whether from careless nursing or deficient ventilation, was responsible for the nephritis seemed to be hardly tenable, at all events, in the bulk of the cases. It appeared to be evident that whether the patient had nephritis or not depended on what *had happened in the acute stage*. What was, then, the difference between the acute stage in and out of the hospital respectively? Clearly this, that in hospital the throats had been cleaned, and at home they had not.

More detailed observation then showed that those who developed nephritis in hospital had usually either suffered from much ulceration of the fauces during the acute stage, or else were children who, from fright or perversity, had much resented the cleansing process, and so had made its performance more difficult. Finally, the practice of keeping children in bed for three weeks as a routine was abandoned, and it was found that those who were allowed to get up when they felt well enough to do so, did not suffer from nephritis to any greater extent than those who had been kept in bed.

There is, then, some connection between the throat in the acute stage and the kidney in convalescence. What is it? Well, the throat is the site of the manufactory of the scarlatinal poison, whatever this may be. From the throat, the products of the bacteria, or more rarely the bacteria themselves, escape into the blood, which circulates throughout the body and reaches the kidney as well as other organs. But, as the other organs—the liver, for instance—do not suffer from inflammation in convalescence, it is obvious that infection of the kidney alone will not account for the nephritis. The kidney is, however, infected.

Is there any other phenomenon that occurs in scarlet fever that will help us to an explanation? Under ordinary circumstances, the work of excretion of urea and its allies is shared between the skin and the kidneys, the latter doing most of the work. In scarlet fever, the skin is first affected with a rash, and later becomes dry and hard, and sheds its superficial layers. A peeling skin cannot secrete, and does not, therefore, do its work; consequently the kidneys have to do its share as well as their own. Under the strain of combined infection and overwork, they break down. Evidence on this point is obtained from the fact that children whose skins are kept acting by frequent warm baths and subsequent anointing with oil, do not develop nephritis so frequently as those whose skins are not cared for. Also, it used to be a matter of common knowledge amongst the old fever nurses that a child whose skin was dry and harsh would be very likely to get nephritis later on.

We will now see what actually happens to the kidney, and, in order to understand the changes which take place it will be necessary to recall the structure of the normal organ. The kidney is composed of a mass of tubes packed closely together, which all open into the ureter, through which urine is conducted to the bladder. Between these tubes are the blood vessels, branches of the renal artery and

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