

Usually, however, a severe and prolonged attack of scarlet fever will include involvement of the kidneys. Where there is intensity and malignity of the virus and elimination of toxins, there are bound to be changes in the kidney, and many severe cases apparently free from nephritis would show this complication, mild though it may be, on careful clinical and microscopical examination. On the other hand, many very mild cases have developed nephritis when the very innocent character of the epidemic would lead us least to expect. But it is not a safe or reliable rule to lay down that mild cases are more liable to nephritic complications than severe. The epidemic we are now passing through, though very mild and widespread, is associated with but very few cases of nephritis.

While we have no lesion in the kidney characteristic of scarlet fever, yet glomeruli seem to be the parts most constantly and frequently involved. Many causes are at work to produce nephritis and among these may be mentioned the following :

1. The elimination by the kidneys of the scarlatinal virus or infection, the introduction of which into the system produced the disease.
2. The elimination by the kidneys of toxic products, produced during the progress of the disease.
3. The increased functional activity thrown upon the kidneys by deficient or absent elimination by the skin. For the swollen, hardened and harsh condition of the skin points to feeble elimination.
4. Probably an involvement of the lining membrane of the uriniferous tubules, similar to that upon the lining membrane of gastro-intestinal and respiratory tracts.

The theory has been advanced, that as nephritis is a complication rather of convalescence than of the disease proper, it is more frequently due to catching cold, thus producing congestion and the associated phenomena. No doubt mild cases are much more exposed to atmospheric changes and changes in the body heat than the severer ones, and this may account for the frequency of occurrences of nephritis in mild cases. There is no doubt that catching cold at a time when the kidneys are weakened down by over work, or it may be by disease, will either produce a nephritis or unmask an obscure one. So also