

it has been used only rarely and reluctantly in private practice. Most physicians have not even given it a single trial, on account of the repugnance of children toward the unpleasant taste of the ordinary cinchona preparations and on account of their toxic properties, especially their injurious action upon the stomach.

Some physicians after a few trials reject the drug when rapid results are not observed.

The cause of such failures is, first, that too small doses have been administered; second, that the treatment has been begun at too late a period, and, third, that unsuitable preparations have been prescribed.

Investigations hitherto made have shown that quinine must be given in comparatively large doses to be effective, and that these massive doses which have deterred many physicians from the use of the drug are ordinarily well tolerated. The organism of the child tolerates quinine much better than that of the adult, this being confirmed by experiments on animals by Briguet. Finally, the action of quinine will be the more marked the earlier it is resorted to. This circumstance favours the view that its effect is anti-parasitic, since during the period of spasmodic cough the infectiousness of the disease becomes gradually lessened.

The officinal quinine preparations are but little adapted for the treatment of whooping cough. As regards the bitter quinine salts, the fault is due to the unpleasant taste and less to the by-effects, which are not important owing to their short duration. The physician often has a veritable struggle with the patients and their relatives. He wastes much time and labour, and often experiences failures because the parents frequently have not administered the remedy owing to its unpleasant taste without confessing the same. If the remedy be administered by subcutaneous injection, enemata or suppositories, or through the stomach tube, the resistance encountered is still greater. The parents are apt to object, and justly so, that any treatment which worries or excites the already irritable child must ordinarily do more harm than good.

The endeavour to find a complete substitute for the bitter quinine preparations suitable for general use has led to a number of important investigations in this field. The