

to reduce the supposed dislocation; it was then tried under ether, but finally operation was resorted to. Even with ligatures the displacement was apparently reproduced and although healing occurred it was with some deformity. An important point is that for a thoroughly good result open incision is necessary.

DR. MATHEWSON read a paper on Quinine Amaurosis with report of a case.

DR. LAPTORN SMITH: I have used quinine for a good many years and have never seen any visual trouble. I have generally stopped its administration when the ears begin to buzz. I understand that this trouble is due to a tonic contraction of the muscles which tightened up the drum of the ear. With regard to the headache I have always understood that this was due to the spasm of the involuntary muscle surrounding the blood vessels of the brain causing anaemia of the brain and not congestion. Also on the heart, I should say that quinine was a powerful heart tonic and acted in the same way as it does on all involuntary muscular fibre. Often in abdominal section when we want the gas in the intestines expelled to relieve the depressing action on the heart, we inject quinine into the tract and contract the muscular tissue.

DR. BLACKADER: With regard to the congestion and contraction of the vessels in the brain, the first effect is one of congestion and I think this is first shown in the ear as it is the fulness of the vessels which first attracts attention after quinine.

DR. G. A. BROWN: In a case of quinine poisoning I saw two weeks ago the first effect was acute urticaria which shows that there was an early dilatation of the blood vessels with a later contraction. There was vomiting and very severe abdominal colic.

DR. MATHEWSON: It is a general idea that large doses of quinine damage the ear, and that here there is often an idiosyncrasy. Several of the patients I mentioned have had permanent serious defects of hearing from large doses of quinine. With regard to the state of the ear after quinine poisoning, it is extremely difficult to dissect out the ear, and experimentally when this is done and the various processes of fixing, decalcifying gone through with, it is really impossible to give any fine diagnosis of the condition which would be present. Rashes are well known after even moderate doses of quinine. Preparations other than what we call quinine, [sulphate], will cause serious trouble. In animals any of the ordinary preparations of cinchona bark will cause amaurosis; in fact in experiments it is the bisulphate which is generally used. In one of the cases in the literature blindness was caused by a preparation of a solution of the bark. As regards the course of the reflex, I am not quite sure of this but I do not see why it could not