

the signs of a sudden partial collapse, 3 with marked cyanosis. To sum up, there was in nearly 9 per cent. of all cases, some evidence of disturbance of cardiac mechanism, which, as far as I can recollect, appeared to be the cause of death in two or three, and disappeared totally in the others. I am not able to state how far a secondary infection was responsible for these, but I suspect quite largely. Osler states that the myocardial changes are less common than the endocardial ones; it seems fair enough to estimate that the cases of dilatation, at least, were connected with weakening of the muscle, but, of course, it must be allowed that the irregular pulse and the cyanosis may quite well be associated with some effect produced upon the nerves of the heart by the scarlatinal toxin. The treatment of the cardiac weakness and irregularity is of the usual kind; strychnine and whiskey are the agents most commonly used by us.

*Arthritis.*—This is an interesting complication, which happened in 17 of our cases (5.2 per cent.). Once a real acute rheumatism was present (a recurrence). The joint disturbance may be but slight and transitory but at other times the joints are swollen, red, painful and tender just as in rheumatism. It is likely that there is a secondary infection of the joints in these cases, but luckily few of them go to suppuration. Many joints tend to be involved at the same time; the order of frequency with us is knee, shoulder, wrist, ankles, elbows, fingers. The vertebral joints of the neck were affected twice, and of the back once. Fixation of the joints and cold applications are generally the only treatment required.

Among other complications, we have found orchitis, vaginitis (5), jaundice, herpes, purpura, eczema and in four cases, abscesses of different parts, often the fingers.

*Nephritis.*—From this most important of complications we have been very free, and upon this hangs my story—at least the part of it that is most important. Ordinarily, the urinary changes to be expected are a febrile albuminuria: McCollom states that in 1,000 cases but 28 per cent. were found free from albumen during the febrile stage—that is, what we call the “febrile albuminuria”; our own findings are at wide variance with this, and the urinary examinations have throughout this series been slavishly made: in 312 cases, only 56 (18 per cent.) showed albumen at any time, blood was found 39 times, and casts 21 times; these phenomena were spread over the urines of 76 patients, so that only 24 per cent. of our cases showed any departure at any time from the urinary normal. Routine examination, twice a week, is kept up till the patient is discharged, and during the febrile period the urine is examined daily or every second day. The presence