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## Original Communications.

### ACUTE NECROSIS OF GROWING BONE.\*

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My reason for bringing this subject before the Association is that it is so frequently overlooked as to justify the remark of Holmes that the presence of this disease is more often discovered in the *post mortem* room than at the bedside—this statement illustrating at once the virulence of the disease and the difficulty attending its diagnosis. Of the many names that have been used to designate this disease, I have chosen that employed by Mr. A. H. Tubby, as uniting simplicity and significance. Other names under which the disease has been described, are: acute infective osteomyelitis, phlegmonous periostitis, necrosial fever, bone-typhus, and, by Ollier of Lyons, *juxta-epiphyseal osteo-periostitis*—a name sufficiently cumbersome, though certainly comprehensive. The symptoms of the affection are sufficiently described by the relation of a very typical case occurring in practice of Dr. W. P. Caven, which I saw in consultation with him, and from which the specimen and the cultures shown were obtained.

The patient, a girl *æt.* 9, was of healthy parentage, but had grown rather rapidly, and was always thin and delicate. One brother died of spinal caries, and a brother and sister of heart disease following rheumatism. Patient was first seen Feb. 21, '91. She complained of pain in the right knee, which was red and tender, but not swollen. Pulse 100, temp. 102°. The next day she complained of pain in the right thigh, but there was no swelling as was proved by measurement. She also complained of pain in the right elbow and left shoulder. Urine, normal.

\*Read before the Ont. Medical Association, June, 1891.

Feb. 13, pulse 120, temp. 103°. Pains in various joints. A slight increase in the circumference of the right thigh was observed, and this part was excessively tender, but no fluctuation could be detected.

It now became evident that the child was suffering from acute necrosis of the lower end of the shaft of the femur. The usual objections, however, were offered by the parents to any operative interference, and in the meantime the suppurative process, at first confined, probably, to the lower end of the diaphysis of the femur, was set up in distant parts. Pleuritic and pericardial rubs were heard with great distinctness, and a swelling shortly appeared in the right submaxillary region.

When finally the objections of the parents to operation were overcome, it was found that the patient was in so low a state that the administration of an anæsthetic would be attended with the greatest danger, and, moreover, the evidence of pyæmia, which the presence of the above-mentioned complications afforded, rendered the prognosis absolutely fatal in any case.

She could be induced to take neither nourishment nor stimulant, and gradually sank, dying on the 9th day of the disease.

Only a partial *post-mortem* examination could be obtained. An incision was made at the site of the proposed operation wound, viz., between the tendon of the biceps and the ilio-tibial band at the outer side of the lower end of the right femur. On incising the periosteum, thick dark pus gushed forth with some force, indicating that it was exerting considerable power in dissecting the periosteum away from the bone. On enlarging the incision it was found that that membrane was separated from the bone throughout its whole circumference below, and that the separation extended to about the middle of the femur. It was strikingly noticeable, however, that the separation stopped short at the epiphysis, and that the knee-joint was quite unaffected. These points are well seen in the specimen. On making a longitudinal section of the bone, the tissue on the shaft side of the epiphyseal cartilage was observed to be in a condition of acute inflammation. The prevailing redness was interrupted at numerous points by yellowish spots of suppuration, and these small abscesses were scattered, not only throughout the cancellous tissue, but also in the medulla of the