

the limb not improved but threatening to become worse, amputation was the only means of saving life, and with the concurrence of my colleagues it was performed. The alternative of searching for the wounded vessel by an incision in the calf, and if it could not be found, proceeding to amputation, was mentioned. Such a course I thought objectionable as imminently dangerous to life. While under the influence of chloroform, the limb was taken off by the circular operation. Ecchymosis has extended up the back of the thigh above the incision, thickening and hardening the integument and subjacent structures but not so as to interfere with the operation. Being relieved from pain, he slept well and was better next day. Generous diet and wine were allowed and agreed well, and healing was completed quickly, without any unfavorable occurrence.

Examination of the limb.—Muscles of calf torn and lacerated extraordinarily, gastrocnemius nearly severed at its middle. Soft parts covering the upper third of the fibula in same state. This bone had been broken transversely near its junction with tibia and the sharp edge of the fracture, driven violently against the tibia had cut across the anterior tibial artery just at its passage through the interosseous ligament. The posterior tibial vein was opened near the middle of the leg and there was a coagulum in the orifice. Among the injured muscles there were extensive coagula.

The pulsation in both tibials was felt for the first two days, before its extinction it was very feeble probably from the gradual extension of swelling to the foot. The anastomosis between these vessels, explains the detection of the pulse on the back of the foot after complete division of the trunk, in the same manner as the return of pulsation in popliteal aneurism after the femoral has been tied. It is natural to examine the state of pulsation in the branches when the trunk is thought to be divided. The persistence of pulse then does not prove that the trunk has not been wounded as is shewn clearly by this case and another of Mr. Paget's. In his a youth was brought to the hospital with a wound near the middle of the thigh, inflicted a few days before, and bleeding profusely, and yet the femoral below the wound and both tibials pulsated naturally. Bleeding having returned on the 21st day, the femoral was exposed and found cut longitudinally for not less than $\frac{1}{4}$ of an inch.

The effused blood under the calf in Connor, probably was from the posterior tibial vein, for the anterior tibial artery was wounded towards the front of the limb while the posterior vessels and nerve were undisturbed so that they had to be raised laterally to trace the seat of injury. In a patient of Mr. Stanley's the leg had been seriously damaged by the wheel of a carriage passing over it; there was great swelling as if the case were one of severe bruising and ecchymosis. After some time, inflammation set in and death followed. Rupture of the posterior tibial vein was found, with great extravasation under the calf. Serious results and even loss of limb may follow a much less formidable accident than Connor's. Inflammation may supervene quickly; aggravated if not excited by the presence of coagula, and the violent destruction of surrounding structure bound down by fascia and tendons and is not only a source of severe suffering but dangerous from its extent. The two next cases exemplify this.

Punctured wound of the leg. Partial transverse division of the posterior tibial artery and vein. Repeated bleedings about a month after