

COMPOUND FRACTURE OF HUMERUS.

By T. J. BIGGS, M.G., Stamford, Conn.

Joe Pettig, Stamford, Slav; age 30; first seen September 29th, 1898. On this case of compound fracture of humerus resulting from a violent blow I was called in consultation by two professional brethren, and on account of the extent of the injury and the poor surroundings for nursing, I advised coming into the hospital, but this the patient refused, so the treatment and operation were carried out at his home. September 30th, assisted by Drs. Phillips and Hoyt, I cut down over the humerus, the incision extending from the insertion of the deltoid down to the lower end of the shaft. After reaching the bone a careful search was made for spiculæ, and six were removed. The wound was then thoroughly washed out and the bones were brought in apposition and drilled for wiring together. Instead of silver wire I used silkworm gut and brought the bones together in three places, fractures being just below the insertion of the deltoid, about the middle of the shaft. After separating the cavity with the bovine hydrozone reaction and Thiersh wash, and thoroughly drying it, a piece of plain bi-sterilized gauze was inserted and packed gently all around it at different points of fracture, carefully adjusted, and bovine pure was poured into the wound; then an ordinary bandage was placed over it. The arm was put up in an anterior-posterior splint, and dressed according to the method in fractures of the humerus. Over the dressing was applied a plaster of paris bandage, which was allowed to dry and a trap-door cut through it to admit the application of bovine which was made freshly every hour for the next forty-eight hours, just sufficient to keep the gauze within moist. At the end of forty-eight hours the gauze was removed and deputation and dressing repeated, with gauze packing, which was moistened with bovine as before once in two hours. After the next forty-eight hours all this was repeated again, and so on until October 10th when the gauze packing was discarded and bovine pure was directly applied, dropping it into the wound once in two hours and depurating over again twice in every twenty-four hours. On the 21st the plaster of Paris cast was removed and an ordinary tin splint was employed. By the 25th the bones had become firmly reunited and the strands of silkworm gut used to keep them together had been mostly absorbed and removed. The wound was now closed and dressed with bovine twice a day. On the 31st the wound was entirely healed, a light plaster of Paris splint was applied to give support to the arm, and the case was discharged cured.

Points of great interest in this case are the short time in which the bones thoroughly united and the wound healed, usually six weeks being required for ordinary transverse or oblique fractures to unite; while here and there were two or three points of fracture, and compound at that, yet the whole repair was completed in thirty-four days. From my experience in the treatment of this case with applied blood, I am convinced that if all fractures were treated by the open wound method, using bovine blood to hasten repair, no such thing as deformities or ligamentous unions need ever result.