

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XIV.]

WEDNESDAY, JUNE 1, 1836.

[NO. 17.]

CASES OF FRACTURE TREATED BY THE BANDAGE, BY PROFESSOR DUDLEY.

REPORTED BY JAMES M. BUSH, M.D.

CASE 1.—Judge ———, of Kentucky, was thrown from his horse, and sustained the following injury :—each bone of the leg was fractured, some two inches above either malleolus—the tibia lacerating, and protruding a considerable distance through, the soft parts complicated with vertical fractures of the lower fragment. The capsular, lateral, and perpendicular ligaments were ruptured. We have here presented a compound as well as comminuted injury, and, to enhance the difficulty of the case, the patient was a man of the most intemperate habits. Yet amputation was not resorted to. The bones were replaced, the torn ligaments re-adjusted, and a common roller applied from the toes nearly to the knee. In the injury, the anterior tibial artery received a wound, which, after a few days, gave rise to an aneurism in the part ; yet this, together with the fractures, lacerated ligaments and other soft parts, were all perfectly cured at the end of four weeks.

CASE 2.—A yellow boy, in a state of intoxication, was precipitated from a gig, and received a fracture of the bones of the leg, three inches above the ankle joint, the lower pieces of bone being literally crushed quite into the capsule. He was dressed three times with the bandage, and in three weeks walked upon the leg, as if no injury had befallen him.

CASE 3.—A man was engaged in blowing a well, and after applying fire to his train, being unable to retreat in time, he was overtaken by a large stone, which fractured the tibia, and did extensive violence to the soft parts. The roller being applied, a reunion of all the parts was effected in three or four weeks.

CASE 4.—A negro man endeavoring to mount his horse while his team was in motion, fell, in consequence of being intoxicated, and the wheel of his wagon passed obliquely over his leg. The fibula was broken near its head, and an extensive wound inflicted on the tibialis anticus, the extensor and peroneal muscles. This leg was immediately dressed in the manner already so often described, the edges of the wound being first drawn together by adhesive strips. A cure was effected in a few weeks, without the slightest untoward circumstance.

CASE 5.—A man committing depredations upon the water-melon patch of his neighbor, received a rifle bullet through the right carpus, which drove before it the os trapezoides and the body of the magnum.

Some five hours after the accident he was dressed by the bandage alone, one or two additional applications of which were sufficient to render the cure complete.

CASE 6.—A wood-hauler, in driving his wagon to town, fell from his seat, with his leg across a deep rut in the road. The wagon passed over the limb, and a portion of each bone, precisely the width of the tire, was driven back among the gastrocnemii muscles. The broken fragments were replaced, and the bandage applied. He was then carried ten miles into the country. In ten days, a second dressing was made, which completed a beautiful cure in twenty days.

CASE 7.—Mrs. — suffered an injury of the elbow joint, consisting in a separation of the internal from the external condyle of the humerus, the fractured portion being drawn down into the bend of the elbow by the pronating and flexing muscles. Great tumefaction of the parts deceived her surgeon, who mistook the injury for a dislocation, and treated it accordingly. The arm was cured, the parts remaining in this condition, and stiffness of the joint was, of course, the consequence. The case was presented to Professor Dudley two months after the occurrence of the injury. The internal condyle was found occupying the bend of the elbow, with an ossific deposit within the capsule in magnitude double the size of the fragment. By a violent effort, the parts were broken up, the condyle replaced, and the bandage applied. It was afterwards dressed daily, always drawing the roller very tightly over the osseous tumor in the joint; and at the end of fifty days the lady had the satisfaction of seeing the articulation of her joint restored. Now, six months since, the injured limb can scarcely be distinguished. This case exhibits the efficacy of the bandage, as a remedy in fractures, in the most cogent manner. It is an instance of its capacity not only to hold the ends of the bones in apposition, by controlling muscular contraction, but to stimulate the absorbent and nutrient vessels to remove useless parts, and deposite new matter where it is demanded.

CASE 8.—Mr. — was engaged in his hemp factory, when by accident he got the cuff of his coat entangled in the machinery. Instantly the hand, wrist and forearm were all drawn in, and wound around an iron axle. The ring finger was fractured at the first phalanx, the bone being literally crushed; both bones of the forearm were broken a few inches above the wrist joint, and the soft parts of the finger, together with those of the palm of the hand, extensively lacerated. A suitable roller having been applied to the finger, the hand, wrist and arm were put under the influence of a larger one. In this case splints were necessary to keep the radius and ulna separate. At the expiration of thirty days the injured parts were restored.

CASE 9.—A gentleman received a large ball in the arm, just above the elbow joint, passing directly through the humerus, and separating entirely the external from the internal condyle. Prof. Dudley being on the spot, the injured parts were immediately adjusted. The bandage was then applied, and the case treated as an ordinary fracture without regard to the gun-shot wound. The termination was again favorable. No unfavorable symptom presented during the progress of the cure.

CASE 10.—A lady with her infant child, aged five months, was dashed by accident from her carriage, the latter experiencing a fracture of the thigh bone a little below the trochanter minor. While the little sufferer was yet screaming under the torture of the injury, the limb was gently extended, and a proper roller applied from the toes to the hips, around which it was made fast. Under the soothing influence of the pressure exerted by the bandage, the child at once evinced an alleviation of pain, and soon became quiet. It was nursed upon a pillow, and in twenty days was well.

CASE 11.—A gentleman suffered a transverse fracture of the patella. It was thus treated:—a bandage was brought with moderate and equable pressure from the toes to near the knee. The upper portion of the bone having been drawn by the action of the extensor muscles nearly half way up the thigh, was drawn down and held by an assistant in apposition with the inferior fragment. Another bandage being then passed round the hips, was brought down embracing the thigh and paralyzing the muscles as it descended to the knee, around which it was neatly adjusted so as to fix the bones in their proper situation. The whole limb was kept constantly extended. A cure was accomplished in four weeks. The individual then left town in his gig, and having stopped at a small stream to water his horse, he let fall his glove which was carried away by the current. In his efforts to recover it, his patella, the new attachments of which were still feeble, was again fractured. He was now a considerable distance from his carriage, and in this situation crawled back to it, and returned four miles to town. The same treatment was pursued as in the first instance, and in the same period the fractured bone was a second time united.

The following case illustrates the use of the bandage in a different class of injuries.

CASE 12.—A man in a personal conflict received a cut on his left shoulder from his adversary's axe, which completely separated the acromion scapulæ from the bone. The arm being elevated at right angles with the body, the parts came into contact. In this position it was maintained by the bandage for twenty days, at which time the parts had united, and the patient was discharged cured.

It were easy to multiply these details, but it is presumed that a sufficient number have been given to establish the utility of the bandage in such cases. Few days pass in which the remedy is not employed by Dr. Dudley in the treatment of local injuries, and with the most unvarying success. Except in fractures of the forearm, he rarely finds it necessary to use a splint; and in the course of his long and extensive practice, he has amputated but a single leg in consequence of fracture, and that was in the case of a maniac who could not be controlled. In gun-shot wounds, regarded by most authors as *sui generis*, and as requiring, therefore, a peculiar treatment, he relies with the utmost confidence upon mechanical pressure alone. In amputations, the stump receives from him no dressings except the common roller—no lints, unguents, plasters or tow, interfere with nature in her restorative process; and the conse-

quence is, that no deep-seated abscesses, no exfoliations of bone, or tedious stumps, follow his operations.

Such results, it must, nevertheless, be admitted, have not uniformly attended the use of the bandage in the hands of other surgeons. Mortification and loss of the limb, and sometimes of life itself, have resulted from its application. I am apt, however, to believe that this has been in consequence of mismanagement. Those who have attended upon the operations of the gentleman whose cases have just been reported, and have seen how surely by means of it he controls swelling, subdues muscular contraction, promotes absorption, and favors the restoration of injured parts, will not easily be persuaded that mischief can ensue when it is skilfully used.—*Transylvania Journal of Medicine.*

SKETCH OF THE CASE OF DR. CROSBY.

BY R. D. MUSSEY, M.D. PROF. OF SURG., ETC. IN THE MED. INST. HANOVER, N. H.

[Communicated for the Boston Medical and Surgical Journal.]

DIED at Hanover, N. H. Tuesday, April 12, 1836, Dr. Asa Crosby, æt. 70, of rupture of the gall-bladder.

This gentleman had been subject, for some years, to attacks of colic, with constipation. At 1 o'clock, on the morning of the Friday preceding his death, I was called to visit him, and found him laboring under pain of the abdomen, with costiveness. He told me that he had been feeble, with some pain in his bowels, for a few days, and that, in his opinion, a gall-stone was lodged in the bile duct;—he said that he had a similar attack last autumn, when, as he believed, a biliary concretion passed the bile tube after having been lodged there for some days. He had now taken, within a day or two, some cathartic pills, such as usually suited him well, but they had not operated. He was somewhat alarmed by a strong rigor, with but little sensation of cold, which had attacked him half an hour before I saw him, and which had not entirely subsided, although there was no sense of coldness remaining. There was tenderness of the epigastrium. I prescribed enemas, which gave him pretty clay-colored discharges, with considerable relief. On Thursday the family had observed a degree of yellowness of the skin and conjunctiva. This was more vivid on Friday. During this day, a diffused tenderness over the abdomen was manifest, and the bodily strength declined. On Saturday and Sabbath, these symptoms increased, notwithstanding the bowels were opened without much difficulty. A free bleeding brought temporary relief and exhibited buffy blood, but the strength gradually failed, until Tuesday morning at 6 o'clock, when he died. The yellowness of the skin slowly faded after Friday, and was very slight at the time of death.

Post-mortem appearances.—A portion of the abdominal peritoneum and that of a part of the small intestines were slightly adherent, with a thin layer of lymph interposed. Several coils of small intestine moderately reddened; half a pint or upwards of serum in the peritoneal cavity.