

the bones, but there was no irregularity or trace of a fracture in either. The leg was then strong, although rather shrunken and stiff.

To any one who believes in intraperiosteal fracture of long bones this case will be of interest, while the history of fracture by direct violence which would cause some deformity, and most probably shortening, must necessarily be taken for what it is worth.

#### LACERATED WOUND OF ABDOMEN.

Ram Dewee, aged 35, was injured by a cow's horn, penetrating the abdominal cavity about three inches above the pubic symphysis. The wound consisted of a triangular flap of the muscles, skin, &c.; the base of which was about four inches in length, the apex pointing downward. From it a large quantity of small intestine had protruded for three hours, and was therefore dry, but had been replaced by Radha Kishen, the sub-assistant surgeon, who also stitched up the wound.

She was given calomel gr. ii, and extract belladonna gr.  $\frac{1}{4}$ , every hour, for six hours on the first day, and for four hours the second day. On the third day she also had it for four hours, but as she seemed weak, she was given some brandy mixture. On the fourth day, the bowels were relieved by castor oil; she was never very feverish or sick. On the 8th day after the accident, she was doing well. Since, then, I have heard from Dr. Penny that she had been ill from another cause, but had recovered, and was now quite strong again.

#### ORAIE DISPENSARY.

#### FOUR CASES OF PENETRATING WOUND OF THE ABDOMEN WITH PROTRUSION OF UNINJURED INTESTINES AND OMENTUM—ONE CASE COMPLICATED WITH EMPHYSEMA OF THE RIGHT SIDE OF THE CHEST FROM WOUNDED UNPROTRUDED INTESTINES.

By Sub-Assistant Surgeon TARINY CHURN BHADOORY.

CASE I.—Nubhalieah, an old woman of about 60 years old, was admitted into the Oraie Dispensary on the 14th December, 1869, with a penetrating wound of the abdomen with a traumatic hernia, the result of the thrust of the horns of a buffalo received twenty-seven hours ago. There was a wound on the left side of the abdomen, one-half inch above the middle of Poupart's ligament, and measuring one inch in an upward and inward direction. Three coils of intestine were protruded through this opening which formed a firm and tight stricture round the prolapsed gut. The protruding intestines were highly congested, and black in some parts. Efforts at reduction failing, I extended the wounds, in consultation with Mr. Sakes, the then civil surgeon, upwards, for two inches, put back the coils of intestine, stitched the wound by a few knots of quill-suture, and dressed it with carbolic oil, and placed a spica bandage. A full dose of opium gr. iv. was at once prescribed, and brandy and milk and sago given. The patient never rallied, but died six hours after admission into hospital.

CASE II.—Girdharee Barbar, aged 32, was gored by a bullock, on the 18th December, 1869, at 3 p.m. He came to hospital the day after fifty-four hours after the accident. There was a wound on the left side, one-half inch above the middle of Poupart's ligament, measuring one inch in length. A solid disk-like mass of doughy feel, and in circumference a little larger than a rupee, was protruded through, and held in tight and adherent stricture by the lips of the wound. The adhesions were separated by the oiled finger, and the invariable native remedy, a composition of onions and garlic made into a permanent poultice with *ghee* gently wiped off. The hernia was then easily reduced, and the wound stitched with a continued silk suture, and dressed with carbolic oil and lint and a spica bandage applied. No untoward symptoms supervened. The internal treatment was with opium. The patient was discharged, cured, on the 15th January, 1870. Time in hospital, twenty-five days.

CASE III.—Ramsahaon, a Brahmin boy, aged 10, was gored by a bullock at about 5 $\frac{1}{2}$  p.m., on the 25th January, 1870. He was brought into hospital by the police, twenty four hours after the accident. There was a wound one inch long, situated three inches below the umbilicus on the median line through which four inches of greatly congested intestine were protruding. Attempts at reduction having failed, I extended the

wound upwards a little, and put back the protruded gut. The lips of the wound were brought together by quill-suture, and dressed with lint soaked in carbolic oil. The internal treatment was with opium and brandy. The boy died of peritonitis on the 28th January, forty-eight hours after admission into hospital.

CASE IV.—Beejaneeah, a blistee girl, aged 12, was gored by a bullock, four hours before her admission into the Oraie Dispensary, where she was brought in with the following symptoms on the 8th September, 1870. There was a valvular wound in the hepatic region, with the protrusion of about two inches of an omentum-like structure. The whole of the right side of the chest was blown up and cracked under pressure of the fingers. While the wound was being examined, air escaped through it with a *whishing* sound. Pulse thready; respiration difficult. The protruded mass could not be reduced by manipulation, and from the important situation of the wound over the liver, I did not think it justifiable either to carry my explorations further or enlarge the rent. The wound was, therefore, simply stitched with iron wire suture, and dressed with lint, soaked in carbolic acid. The protruded hernia was left *in situ*, grasped by the lips of the wound to be cast away. This procedure, I should not omit to mention, was likewise encouraged by the solid character of the protrusion, which I took to be only omentum. The patient was prescribed stimulants and milk and sago. Fever and tenderness of the abdomen set in by the next morning, when the stimulant mixture was omitted, and small quantities of opium substituted. In about a fortnight, all the symptoms of peritonitis were gone, and the *emphysema* had disappeared. The protruded mass now resembled very closely a fungous growth from an unremoved bit of tumour. It was slightly compressed to induce absorption. But, as that seemed to be very tedious, and a slow operation, a ligature was tied round the hernia close to the abdominal wall, and it sloughed off in a couple of days, leaving a healthy ulcer. The girl was discharged, cured on the 13th October, 1870. Time in hospital, thirty-five days.

REMARKS.—These cases serve to shew in a general way the chief features of abdominal wounds inflicted by a blunt-pointed instrument such as the horn of a buffalo or bullock. The kind of injury thus caused is a lacerated wound; but sometimes it looks very much like an incised wound. In these extremely rare cases, the direction of the wound and the absence of tailing may determine the instrument of infliction. Another diagnostic point of no mean value is the condition of the viscera. From what I have seen the hollow and the solid visceral organs generally escape rupture from the gores of these animals.

The amount of injury inflicted by these animals is sometimes very extensive. I recollect the case of an old woman in which the horn penetrated the abdominal wall on the left side on a level with the umbilicus, made a rent upwards for about four or five inches, and after rupturing the stomach, passed through the diaphragm and wounded the pericardium; and where the contents of the stomach were found in the chest, the dissection being performed in the ordinary way. No adhesion of organs was detected.

The first three cases need scarcely any remark, but the remaining one, that of the girl Bijaneeah, was complicated with a rare complication *emphysema*, and a few words are necessary in elucidation of the history of the patient. In her case the *emphysema* was due, I think, to wounded and unprotruded intestines, letting the flatus travel through the sub-peritoneal cellular tissue; as the absence of pulmonary symptoms would render the supposition of the lungs being wounded only a distant conjecture. Again, on anatomical grounds, the horn of a bullock to wound the lungs through such an opening in the hepatic region must have penetrated the liver, unless it passed over the anterior surface of the organ, a condition which could obtain if the ruminant had horns projecting upwards and forwards with the required degree of concavity in front.

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