

Richardson (W. L.)

BOSTON MEDICAL SURGICAL LIBRARY  
26,

## TWO CASES OF CONGENITAL DISLOCATION OF THE KNEE-JOINT.<sup>1</sup>

BY W. L. RICHARDSON, M. D.,

†Visiting Physician of the Boston Lying-In Hospital,

AND C. B. PORTER, M. D.,

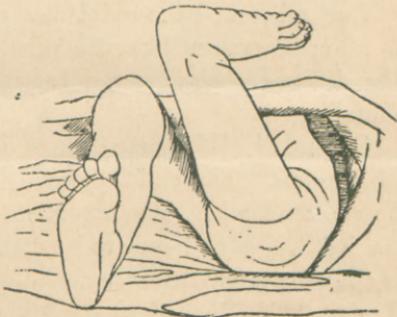
Visiting Surgeon of the Massachusetts General Hospital.

W. G. W. OFFICE  
LIBRARY  
68031  
BOSTON, MASS.

THE following cases of congenital dislocation of the knee-joint are interesting as being instances of simple dislocation, uncomplicated with any monstrosity, paralysis, or alteration of the articular surfaces, such as is usually seen in this peculiar form of congenital dislocation.

CASE I.<sup>2</sup> E. D., aged twenty-four, single, primipara, native of Ireland, entered the Boston Lying-In Hospital, October 27th, in labor at full term. The presentation was with the occiput left and anterior, and the labor was in every respect a normal one. The child was a female, and weighed eight and a quarter pounds.

Soon after the birth a peculiar condition of the left leg was noticed. The child lying on her back, the left leg was observed to take a vertical position, the inner malleolus facing towards the umbilicus, and the foot being strongly rotated outwards. The femur was apparently well formed, as were also the tibia and fibula. The inner lateral and crucial ligaments were greatly stretched, and probably somewhat undeveloped. The tibia was dislocated forward and outward, its head resting well up on the space between the condyles. The fibula had evidently followed the line of the dislocation, but in a much less degree. The whole appearance was that of a well-marked dislocation of both bones forward, with an outward rotation. Above and below the knee-joint, were noticed two distinct furrows in the skin, which was itself con-



<sup>1</sup> Reprinted from the Boston Medical and Surgical Journal of September 16, 1875.

<sup>2</sup> Reported by Dr. Richardson

siderably reddened in these furrows. There were no signs of any present or past inflammatory action about the joint.



That the dislocation had occurred in utero, and some time previous to the birth of the child, was evident from the marked furrow above and below the joint, the reddened condition of the skin in those furrows, and the peculiar manner in which the vernix caseosa was found deposited about the joint. That the dislocation had been brought about by gradual pressure was shown by the fact that the lateral and crucial ligaments were not ruptured, but stretched, and that there was no history of any injury, nor traces of any inflammatory action.

By careful traction the dislocation could easily be reduced, but when the limb was left to itself the bones would immediately displace themselves. The child lay on its back or side, with the leg drawn up and the bones displaced. When the leg was restored to its normal position, the patella was observed to be less prominent than that of the right leg.

The bones were brought into proper position, and the leg bandaged. It was found that the use of a splint was unnecessary, as a simple bandage was sufficient to keep the bones in their proper place. The bandage was removed daily, and the limb carefully washed in alcohol and water, so as to prevent any chafing of the skin.

November 11th the bandage was removed, and the leg retained a perfectly normal position, although the knee-joint admitted of much greater lateral motion than that of the right leg. The mother and child were discharged from the hospital, well.

December 23d the child was carefully examined. The left leg was to all appearances like the other in length, size, and shape, nor could any difference be detected between the possible movements of the two knee-joints.

CASE II.<sup>1</sup> The case occurred in the practice of Dr. L. M. Barker, of Malden. The child (female) was first seen by me in consultation six days after birth. The labor had been normal. The tibia and fibula of the left leg were found to be dislocated forwards upon the femur. The leg was in such an extreme state of tension as to amount to reversed flexion, being turned upward and forward upon the thigh, so that the anterior surface of the leg and thigh touched each other, the sole of the foot looking directly toward the face of the child, the toes pointing backward and the heel forward. The quadriceps extensor cruris seemed to be in the same condition as is seen in those muscles which produce the more common club-foot deformity. The outline of the condyles of the

<sup>1</sup> This paper was read by C. B. Porter, M. D., before the Boston Society for Medical Observation, April 15, 1874.

femur could be distinctly recognized, as also the heads of the tibia and fibula, but the patella was with difficulty made out. There was no soreness or tenderness about the joint, and moving it caused no expression of pain from the child. In the angle of flexion there was still left enough of the cheesy matter with which new-born children are frequently covered, to show that the displacement had taken place a long time previous to birth, and the father corroborated this by a statement made in a letter in which he writes: "From the very first the handling and manipulation of the limb was unattended, evidently, with any distress to the babe. The sedimentary deposit in the indenture above the knee (formed by the unnatural position of the leg) was most conclusive evidence to my own mind that the displacement had occurred a considerable time previous to birth."

By gentle, firm, and constant traction the leg could be brought down into a straight line with the thigh without giving the child any pain. When left to itself, however, it would immediately and almost with a jerk return to its abnormal position. Any attempt made to flex the leg caused evident pain, on account of the strong contraction of the extensor muscles. There was no apparent shortening of the limb when compared with the other. A modified Desault's apparatus for fractured leg was applied, which, being removed a number of times, was worn for six weeks. A splint bent at an obtuse angle was then used for two weeks, and afterwards replaced by one bent at a right angle. After this had been worn for a few weeks the angle was frequently varied, the splint being changed every few days, so as to prevent any ankylosis. Occasionally the child was allowed to go without anything on the leg, so as to develop the muscles.

A careful examination now shows no apparent difference between the two legs, and the child can flex the leg naturally, and has lost the power to extend it abnormally, although at times the bones seem to glide a little upon each other, owing to the continued relaxation of the ligaments.

Congenital dislocations of the knee are exceedingly rare, and the literature of the subject of congenital dislocations in general is extremely limited. Druitt disposes of them in two lines: "Congenital dislocation is the result of original want of development or of intra-uterine disease, and is mostly incurable." Rokitansky about as curtly says, "Congenital luxation has been only recently recognized; it has been observed in several joints, chiefly the hip." Guérin regards it as probably a consequence of muscular retraction in the foetus, just like the club foot, which is essentially a dislocation. Hamilton devotes a chapter to the subject, and two pages to dislocation of the knee. This, with his references, is the most complete article on the subject which I have found.

Cases are also mentioned by Kleeberg,<sup>1</sup> Cruveilhier,<sup>2</sup> Bard,<sup>3</sup> Wurtzer,<sup>4</sup> Youmans,<sup>5</sup> and in the *Bulletin de l'Académie*.<sup>6</sup> Hamilton gives a case of double dislocation of the tibiæ forwards, with double dislocation of both femora.

The two cases here reported, together with that reported by Dr. Bard, are very similar in character, and the results attained in all are interesting as serving to greatly modify Druitt's assertion that congenital dislocations are "mostly incurable."

<sup>1</sup> Hamburger Zeitschrift, vi. 2.

<sup>2</sup> Atlas d'Anatomie pathologique, ii.

<sup>3</sup> Boston Medical and Surgical Journal, November 26, 1834.

<sup>4</sup> Müller's Archiv für Anatomie und Physiologie, 1825, iv. 365.

<sup>5</sup> Boston Medical and Surgical Journal, October 25, 1860.

<sup>6</sup> Vol. xi., page 301.