Inferior origin of the spinalis dorsi from its spinous process.

Part origin of the multifidus spinæ from its oblique and transverse processes.

Part insertion of the same into its spinous process.

Interspinalis and intertransversalis.

Third Lumbar Vertebra.

The duodenum makes its last turn opposite this vertebra.

The third lumbar gives the third root to form the anterior crural nerve.

The third lumbar nerve gives also the second root to form the obturator nerve.

The inferior root of the external cutaneous nerve comes also from the third lumbar.

Inferior attachment of the mesentery.

Superior vertebral origin of the obliquus internus abdominis from its spinous process.

Part origin of the transversalis abdominis from its transverse process.

Part origin of the long crus of the diaphragm from its body.

Inferior origin of the short crus from the same.

Part insertion of the quadratus lumborum into its transverse process.

Part origin of the psoas magnus from its side and transverse process.

Part origin of the latissimus dorsi from its spinous process.

Inferior origin of the serratus inferior posticus from the same.

Part origin of the sacro-lumbalis from its transverse and spinous process.

Part origin of the longissimus dorsi from the same processes.

Part origin of the multifidus spinæ from its oblique and transverse, and

Part insertion of the same into its spinous process.

Interspinalis and intertransversalis.

Fourth Lumbar Vertebra.

The inferior extremity of the kidneys reach as low as this vertebra, and are sometimes united, forming what is called the horse-shoe kidney.

Cæcum begins, and the ilio-colic valves lie on about a line with this vertebra.

Bifurcation of the aorta.

Inferior cava formed by the union of the common iliac veins.

Inferior root of the anterior crural nerve is given off from the fourth lumbar.

The great sciatic nerve takes its superior root from the fourth lumbar.

The obturator nerve takes its inferior root from the same.

Part origin of the obliquus internus abdominis from its spinous process.

Inferior origin of the transversalis abdominis from its transverse process.

Inferior origin of the long crus of the diaphragm from its body.

Part insertion of the quadratus lumborum into its transverse process.

Part origin of the psoas magnus from its side and transverse process.

Part origin of the latissimus dorsi from its spinous process.

Part origin of the longissimus dorsi from its transverse and spinous process.

Part origin of the sacro-lumbalis from the same.

Part origin of the multifidus spinæ from its oblique and transverse, and

Part insertion of the same into its spinous process.

Interspinalis and intertransversalis.

Remarks.—In sciatica the neuralgic pain frequently ascends as high up as the loins, which may be explained by the sciatic nerve taking its superior origin from the fourth lumbar.

Fifth Lumbar Vertebra.

The second root to form the sciatic nerve superiorly comes off from the fifth lumbar.

The sigmoid flexure of the colon terminates in the rectum, which is attached to the body of this vertebra by the meso-rectum.

Inferior vertebral origin of the obliquus internus abdominis from its spinous process.

Inferior insertion of the quadratus lumborum into its transverse process.

Inferior origin of the psoas magnus from its transverse process and side.

Sole vertebral origin of the iliacus internus from its transverse process.

Inferior vertebral origin of the latissimus dorsi from its spinous process.

Inferior vertebral origin of the sacro-lumbalis from its transverse and spinous processes.

Inferior vertebral origin of the longissimus dorsi from the same

Inferior vertebral origin of the multifidus spinæ from its oblique and transverse processes.

Inferior insertion of the same into its spinous process.

Interspinalis and intertransversalis.

Remarks.—From the above statement it appears that the twenty four vertebræ give origin and insertion to forty pairs of muscles, having six hundred and sixty-four points of action; that the fifth and sixth cervical vertebræ have the greatest number of muscular attachments, each having forty; that the eighth, ninth, tenth, and eleventh dorsal have the least, each having twenty; and that the eighth dorsal vertebra gives no *primary* origin or *ultimate* insertion to any muscle.

CASE

OF

DROPSY OF THE CORD,

WITH ARREST OF DEVELOPMENT.

By R. G. MAYNE, M.D,

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[For the Provincial Medical Journal.]

I was called to Mrs G—, at ten, a.m., on Friday, February 2, in her eleventh accouchement. Labor was progressing satisfactorily, though the pains were deficient in power. Having attended her during her previous confinement, eighteen months before, she informed me she had been "*queerly carried on*" all the time of this pregnancy; in the tenth week she had severe flooding, and every four or six weeks subsequently, till within the last fortnight, the attack was repeated, which she supposed to be the catamenia; that on Tuesday night (January 30), "*the waters broke, and had gone from her ever*

since," to the amount of "several gallons." Fearing there might be a little of that exaggeration in her account, which persons in her situation are so prone to indulge in, I requested her to consider the matter, and tell me, as precisely as she could, the quantity she had actually parted with. She adhered to her statement, confirming it by the fact that two beds (mattresses) on which she lay, the bedding, and her night-dress to the very shoulders, had been completely soaked in the fluid in the course of the night, which had passed through all, and quite drenched the floor under her bed. This was corroborated by two elderly matrons, now present with her, who added, that on Wednesday evening (January 31), her "colors" appeared, and "ran from her till she was almost lost in them," &c., reducing her size to at least one half of what it was.

On examination I found the presentation natural, and the membranes, at least the presenting portion of them, entire. Labor proceeding slowly, and the mouth of the uterus being well dilated, about twelve o'clock I ruptured the membranes, and a moderate rush of *liquor amnii* took place. The pains immediately became stronger, and nearly incessant, till in a quarter of an hour delivery was effected of a full-timed living female child. As from imperfect development, continuance of life was evidently impossible, it was laid to rest on the nurse's lap, undisturbed, until the signs of vitality should cease. These consisted of a few movements of the limbs, two or three convulsive motions of the face, and the heart's action singularly conspicuous, at first strong and regular, but soon diminishing in both particulars, till, on the lapse of an hour and a quarter, it altogether ceased. There was no cry, nor any perceptible act of respiration.

The following is a report of an examination, *post-mortem*, made the same day, in which I was kindly aided by my friend Mr. S. Hey:—

The anterior wall of the left half of the thorax was without bony structure as far up as the second rib. The corresponding wall of the abdomen was totally without muscular development, consisting of a flaccid, transparent membrane, distended by fluid, and the abdominal viscera (distinctly visible through its texture) so far as their proper attachments allowed them to protrude. This membrane appeared to be composed of the integument, or skin, and peritoneum, in close union; but at about the lower half, or two thirds, these separated to form the anterior and posterior walls of a distinct bag, the first of which included on its surface half of the umbilicus and all that there was for a cord.

[It is proper to state here that, on the birth of the child, I could not distinguish anything like a cord, save only at the umbilicus, and there it was immediately lost in, or on, a prolongation of the anterior wall, or portion of the bag just described, extending to the placenta. The ligature was, therefore, applied round what seemed nothing more than membrane, which I squeezed together for the purpose, and, after separating the child, on attempting gentle traction by this imitation of a cord, it gave way like wetted paper, unfortunately destroying the distinction which I should have been anxious to preserve, and investigate, between the continuation of the mass of mem-

brane enclosed in the ligature, and the ordinary membranes of the after-birth. There being considerable hæmorrhage, little time was lost in introducing my hand and detaching the adherent placenta, which was much less firm than usual, more like the substance of softened liver, tearing under the necessary pressure of the fingers.]

On opening the principal membrane, about eight or nine ounces of serous fluid escaped. The abdominal cavity was so contracted as to contain only the smaller viscera, and such portions of the larger as were closely fixed to it by their natural attachments. There was *no diaphragm*, no medium of partition between the thoracic and abdominal cavities on this side. There existed so great a degree of lateral curvature of the spine, that only the point of the finger could be inserted between the vertebral column and partially developed ribs, and from this narrow space the lower lobe of the left lung *dipped into the abdomen*; the pericardium was in close contact with the liver. On the right side there was a moderate development of the diaphragm, and all else, with exception of distorted feet, seemed normal.

REMARKS.

Instances of absence of the abdominal muscles are, I believe, occasionally met with; but this case appears peculiar in the defective condition of the ribs, and in the total absence of the diaphragm on the left side. It also forms an example, interesting in an anatomical point of view, of an unbroken continuity of the membranes lining and covering the body, its organs, and viscera, viz., the (left) pleura, peritoneum, mucous membranes, and skin.

From whence came the excessive discharge of fluid which had flowed, or oozed out, constantly from the Tuesday night till within three or four hours of delivery on the Friday morning—the first night and day of a pale color, but on and after the Wednesday night of the appearance of blood? At first sight the case would seem to be one of *hydrops amniosis* of authors, but I am inclined to think that the immense secretion did not take place within the amnion, but rather within that portion of the chorion which should have enveloped the cord had it existed in its ordinary condition. I thus judge from the circumstance that the point where the ligature was applied formed the mouth, as it were, of the distinct bag described, which contained a blood-like fluid, similar to that discharged on and since the Wednesday night, and that the membrane beyond the ligature continued on to the placenta, as already stated. I have, therefore, ventured to designate the case *dropsy of the cord*.

I imagine that the effusion gradually accumulated and distended the coverings of the cord till, reaching the placenta and encroaching farther and farther, it at last found an exit on the Tuesday night, *externally* to the involucra, and on the Wednesday night became blood-like, in consequence of hæmorrhage from displacement of some portion of the placenta in its course.

There were no traces of inflammation found on the membranes, neither is the mother an unhealthy subject, never before in all her ten preceding labors having had any unusual symptom or occurrence. She is now engaged in her ordinary duties, and enjoying her wonted good health.