

this disease in which the fetus was of anencephalous variety, the uterus bifid. This co-association of cystic degeneration of the kidneys and anomalies of development has led to the theory, of which we will speak later, that the disease is one of defective development rather than a change brought about by pressure or inflammation, or both.

The etiology and pathology of this interesting condition still remain largely *sub judice*. Beginning with Virchow in the early 40's, who explained the formation of cysts as the result of uric acid infarcts—an opinion now abandoned—down to the present day, theories have not been wanting. Whether congenital cystic kidney is due to defective development (embryonic theory), to pressure and obstruction (mechanical theory), or pathologic changes of a more complicated nature (the inflammation theory) are questions which have never been satisfactorily answered. Regarding these three theories of causation, somewhere within which, in all probability, the truth lies, Hektoen, writing on the subject in a very exhaustive article,³ says:

1. The theory of retention and dilatation is based on cases in the new-born and old in which were demonstrated causes of obstruction at uriniferous tubules, papillæ, etc., including fibrinous casts, degenerated epithelium blood, precipitated salts. Virchow assumes a papillary atresia or stenosis due to fetal inflammation.

2. The theory of a cysto-adenomatous growth is based on the presence in cystic kidney of adenomata.

3. The embryonic or developmental theory which seems to explain many features otherwise unintelligible is based largely on the fact, so apparent in the majority of cases, of general abnormalities of development, as quoted in cases cited above. This idea, so clearly advocated by Shattuck and Bland-Sutton, is in brief essentially this, that the wolffian bodies and the kidneys, which in normal circumstances are distinct become blended, and through this failure of differentiation an abnormal kidney results with cystic formation as an accompaniment. This view is the one adopted by Osler and incorporated by him in his article on congenital kidney in the latest edition of his "Practice of Medicine." Rindfleisch ascribes the condition to a congenital atresia of the renal artery. Neuwerck, Hufschmid and Von Kahlen incline to the idea of adenocystoma. Fürbringer has the following: Congenital cystic degeneration (Virchow's *hydrops renalis cysticus congenitus*) is usually bilateral. According to researches its origin is generally to be found in the coalescence of the tubuli uriniferi, in obliteration of papillæ by embryonic nephritis, and in the production of uric acid infarcts. The obstruction may also be found in the urinary tract, as the condition may result from the atresia of the pelvis. Klebs assumes external mechanical influences, and Niebending attributes it to engorgement of the kidneys produced by the absence of the ductus Botalli.

It is obvious that the diagnosis of congenital cystic kidney can not be made early enough to be of any practical value to the obstetrician. Its occasional occurrence, however, should not be overlooked in those cases in which there is prolonged and unnatural resistance to the birth of the body. Careful examination demonstrating the abnormally distended condition and all other efforts failing to effect delivery, the physician is justified in puncturing the abdominal walls, passing his fingers through the opening and by the removal of the enlarged kidneys reducing the size of the child sufficiently to admit of its passage through the birth canal.

It not infrequently happens that cases of cystic kidney fail to go to term. Should, however, such a pregnancy survive to the full period of gestation, the child is still-

born or expires within a few minutes after birth. The causes of death are numerous. Asphyxia from compression of the lungs and diaphragm is the direct cause in a great majority of cases, particularly those in which there is great abdominal swelling, anuria, symptoms of anasarca, coma convulsions; tetanus and other uremic symptoms appear sooner or later, and death very rapidly supervenes.

BIBLIOGRAPHY.

- Danforth, I. N.: THE JOURNAL A. M. A., 1888, xi, 541-545.
 Flexner: Johns Hopkins Hospital Bulletin, 1893, iv, 110.
 Griffith, J. J. C.: Trans. Path. Soc., Philadelphia, 1885-7, xiii, 141-143.
 Hektoen, L.: Chicago Med. Rec., 1892, iii, 543-555.
 Lenceole and Le Bot: Presse Med., Paris, 1901, ii, 151-153.
 Shattuck, S. G.: Trans. Path. Soc., London, 1886, xxxvii.
 Burchhardt, L.: Ind. Med. Jour., Indianapolis, 1895-6.
 Burr, C. W.: Trans. Path. Soc., Philadelphia, 1891-3, xvi.
 Freeman, R. G.: Proc. N. Y. Path. Soc., 1897, 8-9.
 Goodrich, C. H.: Brooklyn Med. Jour., 1898, xii, 712.
 Graham, E. E.: Trans. Am. Pediatric Soc., New York, 1899.
 Loomis, H. P.: Proc. N. Y. Path. Soc., 1887-8-9.
 Osler, M.: Maryland Med. Jour., Baltimore, 1899, xli.
 Spiegelberg: Midwifery.
 Fürbringer: Diseases of Kidneys.
 Fussell: Med. News, Philadelphia, January, 1891.
 Brückner: Virchow's Archiv, xl, 6.
 Duffey: Med. Times, London, 1866.
 Siebold: Monatsschrift für Geb., viii, p. 384.
 Carmack: Lancet, 1845.
 Oesterstein: Zeitschrift für Geb.
 Wilson: Obstet. Jour., Great Britain, February, 1878, p. 753.
 Garvis: Obstet. Jour., Great Britain, May, 1878, p. 92.

Clinical Reports.

AN EIGHTY-EIGHT POUND OVARIAN CYST SUCCESSFULLY REMOVED FROM A PATIENT SEVENTY-SEVEN YEARS OF AGE.

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DETROIT.

In these days of operative activity, ovarian tumors weighing more than fifty pounds are sufficiently uncommon to attract attention. The mortality of the operation being so small, and the zeal of the surgeons so great, we no longer see the enormous cysts, which in the earlier days were comparatively frequent.

There being several minor points in the following case, both in the physical signs and in the after-treatment, I feel justified in reporting it in full.

History.—Mrs. M. S. entered Johns Hopkins Hospital March 23, 1903. She was barely able to stand or walk alone on account of a large abdominal tumor, and the infirmity of her age, which was asserted by her companion to be 77 years. She was of Irish descent, illiterate, and had lived for many years in the slums of Baltimore.

Present Trouble.—As far as could be ascertained, for six years the abdomen had gradually increased in size, and for the past six months she had been in bed. She had suffered little real pain, but had complained of great respiratory distress and oppression on the slightest exertion. At times there had been considerable swelling of the ankles, but no urinary disturbance had been noticed. The appetite had been fairly good, and the bowels habitually constipated.

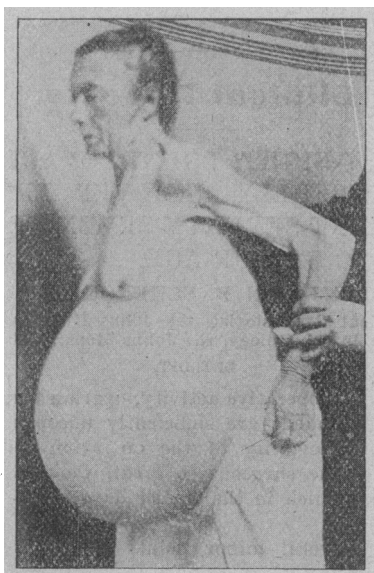
Examination.—She was much emaciated, the face deeply wrinkled, but presenting no suggestion of the ovarian facies; the skin over the whole body was deeply pigmented and brawny. The percussion note over the lungs was resonant, and the breath sounds were harsh, with râles at the end of expiration, which was everywhere prolonged and blowing. The heart sounds were sharp and clear. The temporal, facial, radial and tibial arteries were tortuous and much thickened, standing out as hard cords. Pulse, 80 to the minute, intermitting frequently and obliterated with difficulty, the pressure necessary being 175 mm. of mercury. The lower ribs, pushed upward

3. Chicago Medical Review, September, 1892.

4. Diseases of the Kidneys and Urinary Organs, vol. II, pp. 84-85.

by the enormously distended abdomen, formed an angle of nearly 45 degrees with the upper ribs. In dorsal decubitus the abdominal distention began at the sixth rib, rising gradually and forming a dome-shaped tumor, overhanging the symphysis. This tumor was tense on palpation, and presented a perfect percussion wave. The percussion note was flat, except high up on both sides, where there was modified tympany. On turning the patient from side to side, there was a suggestion of tympany, but no distinct movable dullness could be demonstrated. The circumference at the umbilicus measured 134 cm. (53 inches). The vaginal outlet was much relaxed and the bladder prolapsed. On account of the greatly distended and tense abdomen, a bimanual examination was impossible. The urine was dark yellow, cloudy, acid in reaction, and of a specific gravity of 1028. A trace of albumin was present, and the microscope revealed bacteria in large numbers, epithelial cells, phosphates and urates, but no casts. The hemoglobin, estimated with the von Fleischel instrument, was 55 per cent.

Operation.—As the patient seemed a poor subject for general anesthesia, March 25 I made a short median incision under cocain. This revealed a very thin cyst wall, purple in color, and quite firmly adherent to the parietal peritoneum over its anterior surface. The cyst was punctured and 38 liters of dark brown fluid evacuated. The cyst was practically uni-



locular, and was therefore readily and completely emptied. Attempted separation of the adhesions between the cyst wall and the parietal peritoneum was so painful that nitrous oxid gas was administered, and the two layers rapidly separated by wiping with a gauze sponge; here and there more dense adhesions, requiring the use of scissors or knife. The omentum, which was adherent to the cyst, was quickly tied off, and the latter delivered. Fortunately, there were no pelvic adhesions, and the very broad pedicle was readily clamped off, the tumor removed and the vessels ligated with silk and cat-gut. After covering in the stump, the abdomen was rapidly closed with through-and-through silkworm gut. A very small amount of ether was given, although the operation could have as well been concluded under nitrous oxid anesthesia alone. The patient was conscious before the last abdominal suture was tied.

Examination of the Tumor.—Investigation in the pathologic laboratory revealed a simple cystoma ovarii, lined by one layer of high columnar epithelium. The tumor and contents weighed 88 pounds.

Convalescence.—The lung condition seemed to be the greatest danger threatening the convalescence, as hypostatic congestion was greatly to be feared. With the hope of avoiding this the position of the patient was changed every two hours during the first forty-eight hours by alternately raising and lowering the head of the bed. Despite an extremely irregular and in-

termittent pulse, the convalescence was uninterrupted, and healing was perfect in every particular.

Comments.—The interesting points in the case are the age of the patient, the development of a large tumor from an organ long past physiologic activity, the ease with which the operation was done with but little general anesthetic, and the speedy convalescence, despite diseased arteries and an unfavorable condition of the lungs. Attention is especially called to the possibility of preventing serious pulmonary complications, by a frequent change in position. This is not a new procedure, but it has not been extensively employed, and seems worthy of emphasis. To be effective, one end of the bed should be elevated by chairs placed under the bedposts, the patient being supported from slipping by shoulder and perineal straps. The head should be alternately raised and lowered in this way every two hours. In aged patients, with poor circulation and edematous lungs, this method of preventing hypostatic congestion and subsequent pneumonia, would seem of value.

FATAL BROMOFORM POISONING.

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The facts of the following case were obtained by courtesy of the attending physician, Dr. C. A. Hurd.

Previous Illness.—A girl of 2 years and 9 months had been sick for about two weeks with whooping cough, with severe coughing and vomiting spells at frequent intervals day and night. Blood was vomited at times.

Treatment.—Belladonna and antipyrin had been given without much effect on the spasms. On the evening of July 21 the child was put on two-drop doses of bromoform every four hours with decided benefit, the patient sleeping comparatively undisturbed that night; the next day she was playing about the house and yard, with only an occasional attack.

Poisoning.—About 7 p. m. of the 22d the child went to a drawer, took out the bottle of bromoform and swallowed some of the contents. The burning sensation caused the child to scream, which attracted the attention of the mother, and she at once took the bottle away from the child. Some of the liquid had been spilled on the floor and on the child's dress. About half the contents of the 3-dram bottle remained.

Symptoms.—For several minutes the child seemed to be unaffected, but the mother attempted to telephone to town, about three miles distant, for a physician, and the telephone failing to work she called the child's father. By that time the child began to show signs of drowsiness. As soon as a team could be made ready they drove to town with the child, who was then apparently lifeless or in a condition of deep narcosis. They reached Dr. Hurd's Hospital about 8:30 p. m. No pulsation could be detected at the wrist or carotids and no sound of heart action was at any time to be detected.

Treatment.—Strychnia and whisky were injected hypodermically, the stomach washed out, the head lowered and artificial respiration begun. The only encouraging symptoms were occasional spasmodic gasping attempts to breathe. The breath smelled strongly of bromoform. The pupils were widely dilated. There was no cyanosis until after about three hours, when the body began to get cold and the lips and fingernails blue. It was not until then that artificial respiration was abandoned.

Dose.—The amount taken can only be estimated. Of the three drams prescribed 10 or 12 drops had previously been taken. About 1½ drams remained in the bottle, and an uncertain amount had been spilled, but by conservative estimate 30 or 40 minims was the maximum amount swallowed.

Comments.—No very accurate conclusions can be drawn from this case, except that bromoform is a dangerous drug, probably more poisonous than chloroform, and should be handled with care. Its action was comparatively rapid and apparently paralyzed the heart's action and vasomotor system more rapidly and completely than it did respiration. It was effective in controlling the spasms of whooping cough, when used in full doses, but its agreeable taste makes it a temptation to the child who has access to it.