ciple whose application is probably far-reaching. It is possible that the primary reason for the development of neoplasms consists in a failure of normal tissues to limit the growth of certain elements either homogeneous or heterogeneously imprisoned in the organism at birth. (Cohnheim.)

The foregoing most cursory survey briefly indicates the line of thought which seems to me most profitable to pursue in studying the diseases of children. With all considerations drawn from general pathology are to be combined those based upon the special fact of continuous growth, of unequally rapid evolution. The morbid conditions altogether peculiar to childhood are to be understood only by reference to circumstances of development. Study of disease common to children and to adults must be outlined in its main features in the latter, but then specially adapted to the former, and peculiarities explained by, again, peculiarities in the phase of development. And to thoroughly understand the meaning of developmental processes these must be studied where they are most rapid and their results most vivid and striking, namely, in the embryo and fetus. Here may be first acquired the full conception of the wonderful flexibility of living things, of the ceaseless rush of life towards its goal; of the curve of changes so incredibly rapid at the outset, so gradually slackening throughout childhood towards the relative stability of adult existence, to finally recommence, substituting for the original increment a constant decrement of force, until the wave of life terminates in death.

Original Articles.

DEATH FROM RUPTURE OF AN ANEURISM OF THE SPLENIC ARTERY.¹

BY JAMES B. AYER, M. D., BOSTON.

MRS. H. was married at the age of sixteen, and one year later gave birth to a child. Up to this time she had enjoyed excellent health. When her babe was three months old she was seized with severe abdominal pain, which she attributed to thoughtlessly placing her hands in cold water. It is probable that she suffered from an attack of peritonitis at this time, though she continued to nurse the child. She was confined to the house three months, and was much debilitated.

The child died at the age of two and one half years of brain disease. Three years later a second child was born, and two years afterward a third, both of whom succumbed in early infancy to cerebral affections. She also had repeated miscarriages.

During the eight and a half years of married life she fell from one hundred and forty to one hundred and eight pounds in weight, and was extremely nervous, at times hysterical. She suffered at rare intervals with pain resembling gastralgia. Afterward she suffered occasionally from epigastric pain (sometimes connected with her monthly flow, but not invariably) up to January, 1871, when, suddenly, at the age of thirty-three, menstruation, which had previously been regular in every way, ceased, and there appeared in its stead severe attacks of pain in the neighborhood of the stomach, accompanied by epistaxis. These attacks were preceded for thirty to sixty minutes by a disagreeable

sensation in the epigastrium, accompanied by depression and dread of suffering. The stomach seemed to be bloated, and the extremities chilled. The first impulse was to lie down and to double up until vomiting gave a little relief. The vomiting, which at the outset was never bilious in character (although when protracted it became so), was accompanied by moderate epistaxis.

For many years the attacks when promptly treated by morphine quickly subsided. In from two to twenty-four hours the stomach seemed fully restored to its normal condition, and our patient was again able to resume her duties. She had charge of a large boarding-house, and had a great amount of responsibility and care.

Mrs. H. was under the care of my father and myself during the greater portion of the last thirteen years. At no time were there symptoms of uterine disease or of peritonitis during this period. The pain resembled that of the passage of gall-stones, but frequent examination of the discharges showed the absence of calculi. Once during this period Mrs. H. was free from pain seven consecutive months, but, as a rule, suffered monthly. Of late years the attacks became more severe, and were of longer duration, but she always made a good recovery.

October 31st last she suffered from an unusually severe attack, which was followed by an irregular febrile attack, confining her to the house until November 20th. She could not be influenced by counsel as soon as the acute symptoms passed. Therefore I was not surprised to learn that on the 24th she was out-of-doors in the forenoon driving her horse, and in the afternoon was down town shopping. On this latter occasion a sudden and copious hæmatemesis came on, which came near proving fatal. She rallied, however, was kept very quiet, and was apparently steadily regaining health until the 7th instant, when dyspnoea was noticed. For several days she had complained of pain in the left side. Examination on the 7th showed a slight pleuritic effusion on the left side, which increased in amount up to the 9th, and came to a standstill. There was slight fever on the 7th, none on the 9th. Mrs. H. again seemed to be slowly rallying, and sedatives (which for a fortnight had been freely given) were now rarely required.

At three P. M. on the 11th instant she seemed to her friends to be in good spirits and very comfortable; she had just called for a book to read when she felt a sudden desire for an evacuation from the bowels, and fell to the floor. She passed blood, and vomited a few ounces of bright blood mixed with glairy mucus. Violent epigastric pain returned, and when I reached her, a few moments later, she begged frantically for ether. She was blanched, the pulse could hardly be felt, and I did not dare to give it to her. In fifteen minutes she ceased to breathe.

For many years we had been deceived by the magical recuperative powers of our patient, and had believed that organic disease did not exist, but had hoped (up to near the end of life) that the symptoms could be explained by periodical gastralgia. Repeated examinations during these years gave us no reason to suspect that the symptoms were due to aneurism.

Autopsy by Dr. E. G. Cutler eighteen hours after death.

There was about twelve ounces of fluid in the left pleural sac, of amber color, and containing several

¹ Read before the Section for Clinical Medicine, Pathology, and Hygiene of the Suffolk District Medical Society, December 13, 1882.

flakes of fibrine. The base of the left lung was adherent, the greater part of the lower lobe retracted and containing no air. At the apex the pleura was slightly thickened over a space the size of a silver quarter of a dollar. The right lung was free; at its base was a similar thickening of the pleura. The lungs were anæmic.

The heart was pale, firm, and of normal size; valves and muscle healthy. There was atheromatous degeneration of the aorta just above the aortic valves, and in patches along its entire course.

The stomach, liver, ascending, transverse, and descending colon and omentum were adherent to the anterior abdominal wall. The omentum was spread out, and attached in the pelvis to the broad ligaments on each side of the uterus. The stomach was distended by blood coagula and bloody fluid. The mucous membrane was covered by a dense layer of mucus. On the posterior wall at the cardiac end were two small perforations, with ragged, oval, shreddy edges, as large as a quill. These led into a large sac filled with soft clot, and with walls made up of spleen, diaphragm, stomach, liver, pancreas, and adhesions, and a portion of the wall of the splenic artery. On following up the arteries from the aorta it was found that the splenic artery had undergone aneurismal dilatation with rupture. The lower segment of the spleen was much softened, and appeared to be in a condition of anæmic necrosis.

The uterus was rather small; the Fallopian tubes were closed near the fimbriated extremity by the adhesions of the omentum spoken of above; there were old adhesions in Douglas' space.

The left ovary was greatly atrophied, and held in a dense cicatricial mass. The right ovary, the size of a large bean, on section was found to have a cyst occupying its entire bulk, filled with yellowish, apparently cheesy matter.

The other organs were simply anæmic.

RECENT PROGRESS IN FORENSIC MEDICINE.

BY F. W. DRAPER, M. D.

THE MEDICO-LEGAL RELATIONS OF RUPTURE OF THE SPLEEN.¹

DR. PELLEREAU, whose position as police surgeon and medical attendant at the prisons in the island of Mauritius enables him to speak with authority from his experience, states that in that tropical climate one of the most common causes of sudden death is the rupture of the spleen. Under the influence of malaria the organ takes on changes in its capsule and in its substance which favor this accident; its size is largely increased and its firmness is lessened, so that it is easily fractured. A table is given by the author which shows that of fifty-four cases of sudden and violent deaths occurring in two years and a half, and requiring his investigation, thirteen were caused by rupture of the spleen, nine being the result of blows or falls, and four having been of spontaneous origin.

The symptoms of rupture of the spleen, as observed by Dr. PellerEAU, were those of collapse, more or less severe. There is pain, of a sharp and transitory character, referred to the left side; generally the patient

falls with a cry, and presses his hand over the injured part. Hæmorrhage is the immediate cause of death, and the symptoms and suddenness of the fatal result depend largely on this hæmorrhage, its amount, and its source, and this in turn on the extent and situation of the rupture. Most of the symptoms, especially those which follow the initial shock, are attributable to the loss of blood. The post-mortem appearances, too, are largely the familiar ones of anæmia. The lesions found in the spleen vary greatly in depth and shape, as well as in situation and number. Sometimes they are longitudinal, at other times circular; they may be triangular or stellate; their borders may be smooth, as if cut with a knife, or they may be irregular and indented.

The author concludes his observations with answers to probable medico-legal questions that may arise in connection with rupture of the spleen. He declares that in tropical countries the organ being hypertrophied and softened its rupture is easy, the slightest violence being sufficient to produce that result; in other countries, where malaria is uncommon, the injury requires a considerable degree of force. Under favorable conditions in the organ itself the spleen may be ruptured by *contre-coup*. There is no way of distinguishing traumatic from spontaneous ruptures except by the presence of external lesions, and these are exceptional. The spleen may be broken by a blow or a fall without any contusion or external indication of violence whatever. A man can go about or continue his work, indeed, after his spleen has been ruptured; he may live for days, long enough for a secondary peritonitis to be developed, but generally death follows in a few minutes, or hours at the most.

ON RAPE DURING HYPNOTIC SLEEP.²

In the winter of 1880-81 a "magnetizer" visited Neuchâtel, and by his public exhibitions of his powers created a "magnetic" epidemic, especially among the young people. One of the results of this excitement became the subject of a judicial investigation. A young woman applied, through her pastor, for accommodations at a lying-in hospital for her approaching confinement. She declared that she was eight months pregnant, and that her pregnancy dated from one evening when she was alone with a young man who had the power of "magnetizing" her, and who had violated her after he had put her to sleep. The case came to the notice of the district officers of justice, and Dr. Ladame was required to answer, as an expert, the following questions:—

- (1.) Is the statement of Maria F. to be regarded as trustworthy in its general features?
- (2.) Did the sexual connection take place under the conditions described by her and without her ability to account for it?
- (3.) Was her will wholly paralyzed, and could she not have resisted her seducer?
- (4.) Is conception possible when the woman is in a state of absolute insensibility?

Dr. Ladame, in his reply to these judicial inquiries, first calls attention to the novelty of the subject in its medico-legal relations. He states that only four authentic cases of the kind in question are on record in medical literature. Liman, professor of legal medicine at Berlin, declares that in his experience of twenty

¹ Annales d'Hygiène et de Médecine Légale, March, 1882, page 223.

² Annales d'Hygiène et de Médecine Légale, June, 1882, page 518.