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CASE OF GENERAL FATTY DEGENERATION RESULTING IN APOPLEXY OF THE KIDNEY.

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A. B., clergyman, aged 42 years, married, with general appearance previous to last illness excellent; with large frame, and robust figure, of regular and abstemious habits; had the indications of one destined for a long life.

His father had an attack of apoplexy at 60 years; but, though suffering by paralysis, loss of speech and otherwise, during the remainder of his life, lived to the age of 85 years.

Recently, a brother died from apoplexy at 54 years; and, still more recently, a sister from the same disease at the age of 58 years.

The history of the present case goes back several years; and, although the symptoms had been referred more or less to the head and nervous system, I was led to believe, long before death, what the sequel has proved true: that it was one of general fatty degeneration. When engaged in the hospital in Washington, in the first year of the war, in a letter of that date, the patient complained of disagreeable sensations in his head, and regretted that he did not have the "nosebleed" as usual to relieve these symptoms. Subsequently, he came to reside in this locality, and in 1866 I first became acquainted with his constitutional tendencies. He was then seized with an attack of simple diarrhœa. He had had but two or three slight discharges before I saw him. His skin was warm and moist. Tongue slightly furred. Pulse very small and weak, but not accelerated. Heart's impulse very slight, which I thought at the time in part due to a superabundance of adipose tissue. Prostration great. Having some pain, I prescribed a half grain pill of opium and wine. The effect of the opium was very marked. His sleep was heavy,

his breathing stertorous; stupor lasting for the greater part of two days. Tongue extremely foul; breath exceedingly offensive; pulse 64, reduced in volume. The feeling of prostration quite considerably increased. Alcoholic stimulants were not borne well, and, indeed, such was his aversion to them that very little could be given. Quinine was administered, and in a week he had nearly recovered. For such a slight attack of illness, it was difficult to account for the extreme degree of muscular weakness and prostration, as also for the extraordinary effect of the opium.

I have been thus careful to give the more prominent features of a slight attack occurring four years previous to his last sickness, for their important indications with reference to the pathology of his disease, and as they offered me the first intimation of a tendency which afterwards proved fatal.

His brother's death, from apoplexy, in 1867, disturbed him very much. He soon began to feel certain strange sensations in his own head.

"The vagueness with which he described these sensations could but leave one in doubt as to how much was real and how much imaginary. He described his feeling "not exactly dizzy, but as if about to be." At one time, when in the pulpit, he felt a sense of insecurity in looking out upon the congregation, and held on firmly to the desk with his hands lest he should fall: yet he was able to finish his sermon; and his difficulty failed to attract the attention of his hearers. The fact that these symptoms had a tendency to increase both in point of frequency and intensity, with evidence from other sources, led me to have serious apprehensions in regard to his case. His many friends whose solicitations with regard to him were earnest and persistent, led him to try various means of cure; each in turn having for a time an apparently good effect was soon discarded for another which promised a greater benefit.

He had occasional attacks of faintness, to one of which I was called. It came on without apparent provocation while he was

preparing to go to church. When I arrived, which was in about half an hour, he had but partially recovered. Nothing was observable save perhaps a slight diminution in volume of the pulse, and feebleness in cardiac impulse, with feeling of great muscular weakness.

At another time, a similar attack came on after slight exercise in shovelling snow. In this attack the faintness lasted the greater part of the day. I should say here, perhaps, that the cardiac impulse had always been very obscure whenever examined, even in a comparative state of health; and there was a corresponding feebleness of impulse at wrist. I had attributed this in part to the superabundance of adipose tissue, but mostly to insufficient power in the muscular walls of the heart.

In the spring of 1869, he suffered from an illness in which nervous debility was the most prominent feature. It was quite persistent, notwithstanding the free administration of tonics, and he did not fully recover until after a visit in the country. In September he returned, feeling "never better in his life," although later in the season he returned to the lifting cure.

In December, 1869, his sister, living at a distance, died suddenly from apoplexy, aged 58 years. On the morning of the funeral, he was seized with an alarming syncope, which lasted two hours, from which he was with difficulty resuscitated.

He had always attributed his cerebral symptoms to excess of blood in his head, and it was with difficulty and by slow degrees that he could be brought to see the fallacy of his belief, and to be prevailed upon to adopt a change of diet and regimen. Quinine, with other tonics and a more generous diet, seemed to benefit him; but he quickly dropped them, as he had done before, saying that he was quite well and needed them no longer.

March 14th, 1870—He was attacked with a prevailing sore throat, from which others of the family had been suffering. When first seen, his countenance was somewhat anxious. Skin warm and moist. Pulse 80, regular, but, as usual, soft and small. Tongue slightly furred; throat swollen, somewhat painful, and had a peculiar puffy look, as of serous infiltration. Surface not reddened. A secretion of tough viscid mucus clung to the throat. Bowels in good condition. Urine normal. Pain and swelling increased gradually during this day and the next.

17th.—Swelling at its height. Some

difficulty in deglutition. Countenance less anxious; very little pain; pulse not accelerated; tongue considerably furred; voice somewhat changed; no defection. Ordered a gentle cathartic. No anodyne given, as none was needed. Gargle changed from tannin and potass. chloras. to sage-tea and alum with decided relief.

18th.—Profuse epistaxis, followed by feeling of prostration; in other respects same as yesterday—one defection.

19th.—At noon, again a profuse epistaxis. Swelling subsiding. Pulse 84, very soft and small. Prostration quite marked. Quinine and full diet.

20th.—Feels better. Pulse 76.

23d.—Sat at an open window yesterday and to-day; feels rheumatic pains in various parts of body, localized chiefly in left shoulder and right hip. Pulse 88, and irritable. Skin normal. No ozena. No headache. Throat quite well.

24th.—Rheumatic pains extending and changing; right knee and foot involved. No swelling or redness. Very slight tenderness. Pulse 88. Tongue slightly furred. Skin natural. P.M.—Pain in walls of chest, both sides; no cardiac complication.

25th.—Pain in chest continues. Pulse 88. Tongue considerably furred. Left foot involved.

26th.—Spasmodic respiration, with occasional involuntary sighing. Pain much less; in fact no pain, except on motion. Right leg and foot relieved; left foot and leg involved. Pulse 92. Urine high colored, loaded with urates; otherwise normal.

27th.—Sighing respiration much less. Left arm and hand involved; other parts relieved. Defection from Rochelle salts.

28th.—Tongue clearing. Pulse 86. Improvement in symptoms generally.

R. Potass. iodid. gr.v. 3 t. d.

29th.—Continues better.

30th.—Pulse suddenly mounted to 108; continues to feel better and stronger, however. Otherwise, symptoms same as yesterday. Soreness and lameness abating. On forced inspiration, a slight pain still in chest. Sounds of heart normal; no cardiac complication has yet occurred. Tenderness of hands and feet disappearing. Tongue still clearing up. No reason apparent for such an increase in rapidity of pulse. Ordered an enema. P.M.—Left forearm and hand swollen and red—the first appearance, during sickness, of the proper rheumatic blush to the skin; right forearm and hand soon reached the same condition. More pain than he has yet experienced since rheu-

matic attack. Hitherto no anodyne has been necessary to secure sleep. One drachm of tinct. hyoscyami given.

31st.—Much better. Slept well, but heavily. Pulse 92.

April 1st.—Continues to improve. Swelling and redness in arms abating. Is able to get up, with a little help, to have dejection. Pulse 84. Some appetite.

2d.—Pulse mounts again to 104, irritable. No other indication of trouble; on the contrary, remarks how well he feels. Appetite good. Had slept well. At 1 o'clock and 15 minutes, while sitting up in bed taking his dinner, he was seized with sudden acute pain in left side and back, amounting to agony, and he sank back utterly helpless and prostrate. When seen, about twenty minutes later, immediate death seemed imminent. The shock was terrible. Countenance livid; skin cold and clammy, and studded over with great drops of sweat; clothing drenched; extremities deathly cold; respiration gasping; sounds of heart inaudible; pulse scarcely and only at times perceptible. A hypodermic injection of one third of a grain of morph. sulph. was given immediately, and in ten minutes he seemed easier and began to rally a little. Stimulants were given freely.

Council was asked, and Dr. Cotting sent for. Very little hope was entertained of his being able to rally. Stimulants continued; brandy and ammonia given freely, and, later, beef-tea and quinine. Pain became less severe, but still constant; other symptoms remained nearly the same. His death constantly expected. The slightest improvement was perceptible about midnight. The pulse was a little more prominent; could be counted continuously for 10 or 12 beats only, but by counting rhythmically during the time it was not perceptible it was made 170 per minute. In the morning, April 3d, he had rallied but little. Could answer questions in monosyllables. Respiration still short and quick. Pulse 160, small and evanescent. Extremities still clammy and cold. Countenance still livid. Passed urine in bed. Had taken since yesterday noon, by way of stimulants, twelve ounces of brandy, half bottle wine, half drachm ammon. carb., ten grains of quinine sulph., and, at intervals, beef-tea. Pain in region of left kidney quite acute; very tender on pressure there. Applied fomentations.

April 3d, P.M.—Has improved during the day. Passed water, which was not preserved; "was not bloody, looked natural." Still entirely helpless; unable to move

without assistance, and still the hands and arms in particular maintain that deathly coldness which has existed since yesterday. Pain continues in left side; not relieved by fomentations, and but temporarily by chloroform; very tender and has an indurated feel. Unable to bear a careful examination.

4th.—Slept at intervals through the night; feels somewhat refreshed. Still helpless. Pulse 100. Skin warmer; extremities at times clammy. Urine examined, and found to be loaded with phosphates; otherwise normal. Nothing to account for pain in region of kidney. Quinine diminished to two grains every five hours. Stimulants abated. P.M.—Passed urine several times during the day; sp. gr. 1022; excess of phosphates; no blood; no albumen; no casts; acid. Pulse 112, improved in quality. One dejection by enema. Extremities can be kept warm. Complains of less pain in side. Still helpless.

5th.—Feels more comfortable; slept better. Pulse 108, more full. Tongue less furred. One dejection by enema. Takes food quite well. Symptoms generally improving. P.M.—Comfortable all day. Can be moved with greater facility and with less pain. Fears return of pain; left side still sensitive; deep pressure not borne. Skin warm and natural. Depression passing off. Pulse 104, steadily improving in quality.

6th.—Had a good night; feels "splendid." Relished a breakfast of bread and cream. Pulse 96, full. Omitted quinine and prescribed tr. ferri chlorid. 10 drops in water 3 t. d. 9, A.M.—Faintness coming on. Pulse increasing in frequency and falling off in volume. Surface of body and lower extremities warm; shoulders, arms and hands clammy and cold. Countenance anxious; in spite of all efforts, evidently sinking. 5, P.M.—Pulse 120, small, weak, evanescent. Respiration short, quick, incomplete, and 40 times per minute. Passed normal urine. Used stimulants with uncertain effect; slowly rallied towards 11 o'clock, P.M., and slept a troubled sleep from 12 until 3½ o'clock. Woke with sharp pain in region of heart. Took 3 drops fld. ext. opii, with entire relief.

7th.—All day between life and death. Pulse 130, scarcely perceptible. Respiration quick and incomplete, 36 per minute. Voided urine four times in twenty-four hours; normal. Bowels tympanitic and puffed up enormously. Left side exceedingly tender. Pain on movement; not much otherwise. Constant desire to defecate, without result. Sleepless night.

8th.—Condition much the same. Pulse

a little more firm. Frequent fainting attacks during day. 4 o'clock.—No evacuation of urine since morning. Some uneasiness. About twenty ounces of dark colored urine drawn off with catheter. 8 o'clock, drew off about twenty ounces more of urine, with strong ammoniacal smell, followed by fainting. Rallied about 10 o'clock. Sent for Dr. Borland, who kindly consented to relieve in watching. Very little prospect of his surviving until morning.

9th.—Had slept a greater part of the time since 1 o'clock, feeling much refreshed. Raised a single sputum of blood. Condition decidedly improved. P.M.—Bright and cheerful. Voided urine twice; perfectly normal. Pulse 100, quite firm. One dejection. Bowels tympanitic; very full. Still **pain** in left side; extremely tender; has an indurated feel, and somewhat swollen. Relished a cup of tea. Extremities warm; skin natural. Slept quite nicely from 11 until 1 o'clock. At 1 o'clock a change noticed again in pulse, it becoming more frequent and unsteady; the patient, however, declared himself quite comfortable, but was restless the remainder of the night. 8, A.M.—Pulse 120, small. He still declared that he "felt quite like himself," and "had no especial discomfort, except his side." In fact, a beefsteak was brought, from which he extracted the juice with evident relish. Having a desire to defæcate, by his own request an enema was given, and immediately he sank, and died in about twenty minutes.

During the last week Dr. Cotting was his constant visitor and medical council, and Dr. Borland kindly relieved me, both by watching and by council.

The following account of the autopsy is by Dr. C. W. Swan, who made it.

Autopsy, 32 hours after death. Smell of decomposition in room where body lay, but no discoloration of body. But little rigor. Thick layer of fat in chest and abdominal walls; scarcely a proportional amount in abdominal cavity. Head—brain and membranes not remarkable. Heart—ventricles dilated; walls somewhat thinned; muscle pale, flabby, very friable, and under the microscope seen to be in an advanced stage of fatty degeneration. A small amount of dark fluid blood in the right side and connecting veins. More than the normal quantity of fat upon the external surface. Valves healthy. Lungs well, excepting moderate œdema, most marked in left upper and lower right lobes.

Abdomen.—Whole large intestine enormously distended with gases. Signs of

slight irritation of peritoneum here and there upon the intestines. Omentum swept upwards and outwards to the right so as to lie wholly above the colon.

The left kidney lay enveloped in the posterior portion of a solid sub-peritoneal mass of recently coagulated blood, which filled up nearly the whole of the concave space at the left of the spinal column, and measured upwards of ten inches in the long diameter, and would weigh by estimate after removal about five pounds.

A longitudinal section of the whole mass, made from front to back, showed first, a kidney, whose wedge-shaped extremities, as compared with the more rounded form of the right kidney, suggested the idea of its having been compressed; although this and other irregularities of form, it is said, may occur without compression. Next, the upper half of the capsule of the kidney very largely and evenly dilated by a thick layer of coagulum. Finally, the great mass of outside coagulum, including lost and up-turned lower portion of capsule, streaked with the normal adipose tissue of the region and extending indefinitely in various directions, principally towards the groin and diaphragm. The kidney, like its fellow, was soft and of a pretty uniformly distributed pale yellowish color, of most extraordinary degree. The tubuli were in most instances filled with very fine fat grains, interspersed with debris of defunct cells. The capillary masses of the Malpighian bodies looked healthy. In the substance of the organ, and not communicating with the healthy-looking pelvis, were two remarkable spherical nodules, of the size of a filbert or larger. The lower was made up of concentric layers of decolorized fibrin. The upper was filled with recent black coagulum, excepting a single inter-layer of decolorized fibrin. Besides these, were several very much smaller irregular homogeneous deposits of decolorized fibrin in various parts of the substance of the organ and some small coagula. The upper large nodule lay near the surface of the kidney, and projected somewhat above it, and its cavity communicated with that of the dilated capsule by a roundish opening, less than one-eighth of an inch in diameter, loosely closed by a little fibrin. There seems hardly room to doubt that here was the true source of the hæmorrhage. There were traces of atheroma in the abdominal aorta, but the renal artery was healthy.

No hæmorrhage was observed in any other organ or part of the body. The intestines were opened only by accident, but the fecal matter escaping was clay-colored.

Liver full-sized and of fatty appearance. By microscope, many of its cells filled with single large globules of fat. The biliary system was not carefully examined. The small gall-bladder was not opened. Spleen of medium size and rather pulpy consistency.

Here we have a disease commencing in an insidious manner and progressing uninterruptedly to a fatal termination, attended by symptoms of scarcely sufficient weight to arouse the suspicions of the most observing. A peculiar susceptibility of the system to medicinal agents, cerebral symptoms obscure and of doubtful import, a strongly-sympathetic and impressible temperament, were among the elements to be considered and rightly estimated.

Then came on an attack of sore throat, of too little severity to occasion any anxiety in a person differently constituted. This was followed, on exposure to cold, by an attack of sub-acute rheumatism, in which there was an unusually small amount of swelling, redness and pain. And finally occurred an extraordinary and necessarily fatal lesion, whose true character could only be ascertained by autopsy.

TAYLOR ON DACTYLITIS SYPHILITICA.

(Concluded from page 397.)

WE now come to the second variety. In this form, the inflammatory action may begin between the periosteum and the bone, a specific periostitis; or may commence in the cancellous tissue around the medulla, an osteomyelitis. The product is gummy material, causing enlargement of the bones, often to a great extent, limited, however, to the phalanges involved, which may be any or all. Process slow or acute, and both may exist in the same patient. The integument becomes very much stretched by the pressure from within, tense, immovable, and devoid of articular furrows. Color varies from pink to red. Often temporarily tumefied and sensitive. No concomitant lesion of the nail, and as a rule no gummy deposit under the skin. Changes in the fingers probably the same as in tibia, which, in Volkman's case, showed a loosely attached periosteum, and between it and bone, a small cheesy mass. Microscope showed the external layers of the periosteum to be normal, and inside of this a layer of fusiform cells, which, further inward, became more numerous, smaller and rounder, and near the bone lost their cellular character and turned to fatty detritus. The cheesy mass, immediately on the bone, projected

by tubular prolongations into the Haversian canals, while upon the bone new periosteum was forming.

After the deposit of the gummy material, no inflammatory action is excited, but it slowly produces the death of the bone which it infiltrates, and is finally absorbed, leaving a loss of substance which is not again replaced, the whole process being unattended with suppuration. The swelling, when originally developed, is softer in the acute than in the chronic form, and this is probably due to the tissue, which is thus rapidly proliferated, being of a colloid character. This variety, of course, produces much deformity, and has a tendency to destructive change; whereas, in the chronic form the swelling is firmer and there is a tendency to remain indolent and infiltrate the bone, and finally be absorbed rather than to break down and to be eliminated. Berg's case proves that when the lesion begins as an osteomyelitis, its course at the commencement may be quite rapid, so that very soon the finger becomes greatly enlarged. The swelling of the bone seems to have been perfectly smooth, and surrounded by a wall composed of compact tissue and periosteum. This latter fact lends weight to the view that the lesion was in reality developed deep in the cancellous tissue, and that coincidentally with the rapid proliferation of gummy material, the compact structure and periosteum gradually became expanded, so that they fully accommodated themselves to the very considerably increased pressure from within. McCready's case, whether it began as a periostitis or an osteomyelitis, brings out the important clinical fact that, even if an extensive gummy deposit is formed in bone, it may finally undergo fatty change, and be absorbed without softening and being thrown out, so that from all these cases we may infer that both conditions, absorption and breaking down, may obtain in this lesion.

The liquid formed by the degeneration of gummy tumors is a viscid, yellowish fluid, containing cheesy flocculi, but no pus. Microscopical examination shows amorphous granular matter, with, sometimes, a few connective-tissue cells, but never, in an un-irritated condition, pus-corpuscles. These latter may be found after the gummy ulcer or sinus has been exposed to the air, or has been treated by irritant applications, but never in the original process of softening. The color of the fluid varies from a yellow to a brown; its consistence is also variable, being thin when drawn from a joint and mixed with effusion, and thick and inspis-