with Graves' disease, apparently remained entirely well for periods varying from three to seven years. They then relapsed and none of the remedial measures which before were so effective were of any avail; four out of the five dying on my hands. This result is not without its analogy in diabetes, for if a diabetic once indulges in starches his glycosuria then increases often for weeks after his indiscretion, though he may have quickly returned to his old observance of rules of abstinence; and as I have mentioned above each of my patients with a late relapse had returned to a meat diet.

ADIPOSIS TUBEROSA SIMPLEX.

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THERE is a condition which resembles Dercum's disease in respect to certain clinical features, but it differs markedly from adiposis dolorosa in its course, and, unlike the latter disease, is amenable to treatment. The subjects are obese and sometimes extremely so, as in one case which I observed. The disorder may occur in the plethoric or the anemic form of obesity, although more commonly perhaps in the latter.

Circumscribed fat masses appear in the subcutaneous tissues; they form distinct, moderately dense, slightly movable, somewhat flattened tumors, ranging in size from a bean to that of a hen's egg. Their number varies all the way from one-half dozen to two dozen or more. These moderately firm fat-nodules are not distributed over the entire body, but in some cases are confined to the extremities, particularly the lower, and in others, to the abdomen. The tumor masses show no tendency to fuse together and are not elevated above the surrounding surface; they are sensitive to the touch and may be the seat of pain which varies in intensity within rather wide extremes, being moderately severe and distressing in rare cases and trivial or even absent in the majority of instances. The lymphatic glands are not involved, and the skin remains soft, flexible, and non-adherent. The mental processes are normally active, and also the muscles; asthenia is not present, and there is no more indisposition to physical exertion than is observed in cases of obesity as a rule. The knee-jerks are present and the cutaneous sensibility is unaltered, in some cases at least. The mammae and abdominal panniculus adiposus may be overhanging or pendulous, but not in all cases, as an analysis of the symptoms of the instances reported below will indicate. It is

an uncommon condition, since it was noted in only 4 out of a total of 324 cases.

The etiology is that of general obesity, as far as I have been able to determine. No pathologico-anatomic study of the associated subcutaneous fat-nodules was undertaken, for the reason that they were removed in every instance as the result of treatment of the polysarcia adiposa. Their intimate association etiologically with corpulency is almost undoubted, in view of the fact that their disappearance is determined by proper treatment for the latter condition. For the identical reason, the condition known as *tuberosa dolorosa* may be excluded.

Brief notes of my cases may here be narrated:

CASE I.—J. H. J., aged forty-three years, single, occupation physician, applied to me for treatment February 4, 1903. The weight was 385 pounds (nude), and the height 5 feet 10 inches. The family history reveals the presence of gout in several generations on the mother's side; the maternal grandfather weighed 250 pounds, and two brothers each weigh 225 pounds. His paternal grandfather died of chronic cardiac disease. Both parents are living, and in good health.

Previous History. Some childish diseases; at the age of ten years was kicked by a horse in the jaw, and as a consequence partook of fluids for a number of weeks. When a return to solid articles of diet was made, he began to take on flesh, and had been going from bad to worse in this regard until the date of his first visit. In recent years the dyspnoea on physical exertion was a most troublesome symptom.

Social History. The patient used spirits quite constantly, although not guilty of excessive indulgence; smoked regularly to a moderate extent since early adolescence; never took muscular exercise systematically. Patient observed that abstinence from alcoholic beverages lead to a slight diminution in bulk and weight, although it is to be recollected that hereditary predisposition is easily traceable. An excessive diet of starches and sweets was also an etiological factor.

Present Condition. Patient complains of breathlessness on exertion; has inclination to rest often and sleep much. Muscular power has of late been diminishing gradually and slight subjective symptoms, referable to the viscera, as the lungs, heart, and stomach, have been manifesting themselves, but distinct asthenia was not observed. An examination of the urine revealed the following result: The twenty-four hour quantity was 2000 c.c.; the specimen was clear, specific gravity 1024; uric acid and urates increased; a trace of albumin, and hyalin and granular casts were noted. There was neither indol, skatol, nor sugar present.

Physical Signs. The face was congested, chest broad and deep, waist thick and prominent, with pendulous abdominal parietes,

while the arms and legs were also quite massive. The respirations were hampered and much labored on slight exertion, and the respiratory sounds, on auscultation, slightly wheezy and attended with a few sibilant rales. The heart's action was exceedingly distant and apparently feeble, and the pulse was small, rapid, irregular, and intermittent. There were no murmurs present and the size of the heart could not be outlined owing to the extreme subpericardial overfatness. No evidences of atheroma were presented, although the aortic sound was somewhat accentuated. From the median line of the abdomen and extending to the right flank, six rather hard masses, four of which were as large as flattened hen's eggs, could be readily palpated in the subcutaneous tissue. They were painful, at times excruciatingly so, and quite sensitive to the touch. There were no similar masses to be found elsewhere over the body.

Treatment. The patient was put upon a suitable treatment for the marked obesity, the chief reliance being placed upon the dietetic restrictions as indicated by the appended diet list:

Morning Meal or Breakfast: An orange, two peaches, or grapefruit, one soft-boiled egg, or an egg cooked in any manner except fried; or, instead of the latter, chicken minced or broiled, 2 ounces; two glasses of skimmed milk; graham bread, 1½ ounces.

Noon Meal or Luncheon: Caviare, 2 drams; raw oysters or boiled ham or sweetbread or fowl or game, 3 to 4 ounces; the meats at this meal are to be taken cold when convenient; salad, 1 ounce (without oil); cheese, 2 drams; bread, rye or bran, ½ ounce; fruit (except strawberries and bananas) 4 ounces; or, instead of the latter, may take 4 ounces of water.

Evening Meal or Dinner: Fish, 2 to 3 ounces; sweetbread or game or poultry or veal, 3 to 4 ounces; one of the following green vegetables—asparagus, spinach, string beans, green peas, cauliflower, celery, sorrel, lettuce, and macaroni with a small amount of cheese, 1½ ounces; graham bread, or toasted bread, ½ ounce. For dessert, may take 4 to 5 ounces of fruit; junket or custards (sweetened with saccharine). Instead of fruit, may take a glass of water.

No liquid at mealtime except as indicated above.

In addition, a glass of Celestines Vicby water four times a day, one hour before mealtime and on retiring, was allowed, for the purpose of combating the excess of uric acid in the blood. Massage with Swedish movements on Mondays, Tuesdays, Thursdays, and Fridays was insisted upon, as well as a tepid bath on rising, followed by active friction of the skin.

The only medicinal substances employed were cardiac stimulants and tonics.

As the result of this treatment there was a gradual loss of weight, and at the end of one year all of the subcutaneous tumors had completely disappeared. The patient, who lived in New England, called on April 30, 1904, when his weight was 300½

pounds. Not a vestige of the former tumor masses could be detected, and the patient reported that *pari passu* with the loss in weight both the circumscribed tumor masses and the pain had vanished.

CASE II.—Mrs. E. J. B., aged forty-five years, applied for treatment February 2, 1902. Weight 180 pounds (nude); height, 5 feet 5 inches.

Family History: Father stout, and both rheumatism and gout are shown by paternal side of family; the paternal grandmother died of heart disease, while the patient's mother had uratic deposits.

Previous History. Patient had had certain childish diseases, and scarlet fever and measles since marriage. For many years had manifested gouty and rheumatic symptoms at irregular intervals; there had been two attacks of grippe and one of cellulitis affecting the pelvis many years previously. More recently has suffered from flushes and extreme despondency.

Social History. The patient is childless and passing through the menopause, having menstruated but three times in the previous year. There had also been a tendency to suppression of the menstruation from time to time in the preceding years; this was attributed to anemia, from which the patient seemed to suffer at intervals. The patient had paid some attention to systematic exercise and also to the matter of dieting, but not for any lengthy period of time. He had used tea and coffee, though not to excess; had taken wines and spirits with great moderation.

Present Illness. Dates the origin of the present condition back several years, or to the time when the gouty and rheumatic symptoms became aggravated, since which time she has shown a tendency to grow stouter. There has been a decided disposition to gouty pains and swelling and stiffness of the fingers and feet for years, and at present the shoulders are implicated. There has been some dyspnoea upon physical exertion, and undue liability to contract colds. The urine analysis proved negative, although this secretion was strongly acid. A blood examination gave the following result: red cells, 3,870,000; white cells, 10,000; and hemoglobin 70 per cent. The red cells stained normally, and polymorphonuclear leukocytes seemed to be relatively diminished.

Physical Signs. Obvious pallor of mucous membranes and skin, although body is plump and apparently well nourished. The left ventricle of the heart shows a slight degree of hypertrophy, but the myocardium lacks vigor; aortic sound is accentuated, but the palpable vessels are not sclerotic. I accidentally discovered a considerable number (about one dozen) of tumor-like masses in the muscles, more particularly of the thighs, although a few were also observed in the fleshy portion of the forearm. They ranged in size from a Lima bean to that of a somewhat flattened English walnut, and were not elevated above the surrounding surface. Their range of mobility was very slight. They lacked the softness of true fatty tumors

and were not lobulated in character. The patient made no complaint of pain referable to these masses, and a few only were moderately painful on rather severe manipulation.

Treatment. The treatment was similar to that of Case I. A suitable dietary, a glass of Saratoga vichy three hours after each meal and on rising, massage (Mondays, Tuesdays, Thursdays, and Fridays), a walk of three miles daily, and a cool bath on rising, followed by active friction to the skin, constituted the principal elements in the management of the case, and produced a slow and gradual reduction of the weight, which fell from 180 pounds (nude) to 165 pounds. After the loss of about 10 pounds a noticeable reduction in the size of the larger tumor-like masses was observed, while the smaller ones had already disappeared. Later, or in the course of two months, there was an entire disappearance of these circumscribed tumors. In this case a discontinuance of the treatment was followed by a renewed increase of weight up to 179 pounds, and a return of the tumor-like masses described above, although they were neither so numerous nor so large. A recourse to the dietary and *regime* previously employed again led to satisfactory results, with a disappearance of the fatty tumors.

CASE III.—Mrs. A. H. F., aged thirty-seven years, nativity American, first consulted me April 9, 1903. The weight at that time was 190 pounds (in clothes), and the height 5 feet 6 inches.

Family History. Both parents living, mother inclined to obesity and is gouty, while the father has chronic Bright's disease. Otherwise no hereditary taint.

Previous History. Childish affections. From girlhood has been troubled with neuralgia and gouty pains at short intervals, but has not suffered so much since marriage. Had an attack of grippe one year ago, and has looked poorly since. There is a history of general nervousness, extending over a period of several years; the patient became despondent and irritable at intervals.

Social History. Married, has two healthy children; menstruation normal. Has dieted for the corpulency, but unsuccessfully; is not fond of exercise.

Present Illness. After the birth of the first child, about ten years ago, began to take on flesh slowly and gradually, with a corresponding increase in the severity of the gouty manifestations. There has of late been considerable dyspnea on exertion. The urine analysis shows a qualitative increase in uric acid, otherwise it appears normal.

Physical Signs. Nothing abnormal is presented by the lungs and heart, although the first sound is distant. There is no evidence of any cardiovascular change. The fat deposits occur principally over the hips and abdomen. Patient discovered a number of small, non-painful fat masses scattered over both hypochondriac regions. They are painless, although slightly sensitive to the touch.

Treatment. The patient was placed upon a somewhat restricted dietary, particularly with reference to the carbohydrates, and, in addition, the following directions were given: a walk of three miles daily, preferably in the morning; a glass of Saratoga vichy three hours after each meal and on rising, and a warm bath on retiring, followed by active hand rubbing, beginning at the feet.

May 19, 1903. Patient reported upon her condition; weight, 182 pounds; feels herself greatly improved. The rather soft, elastic masses of fat have greatly diminished in size, and now do not exceed in size that of a pea. The same *regime*, including massage, was ordered to be continued, the patient using no medicines.

September 24, 1903. No fat tumors palpable at this time; weight, 168 pounds. Patient states that she feels somewhat nervous. The dietary was now relaxed and a tonic was ordered.

May 10, 1904. The patient still slightly nervous, although she has led an exceptionally active and strenuous life during the past winter; weight, 164 pounds (stripped). Is given to emotional disturbances at intervals. Not a trace of the former tumor-like masses detectable around the waist, and there has been no recurrence since the previous autumn. The patient was able to endure more than many of her apparently healthy friends. No extract of thyroid had been administered, but a tonic was now prescribed composed of strychnine sulphate, extract of sumbul, extract of gentian, and quinine valerate.

CASE IV.—Mrs. F. W. W., aged thirty-two years, nativity American, first called on me September 10, 1901. Her weight was 158½ pounds, and the height 5 feet 5 inches. The family history reveals carcinoma on maternal side (mother and two aunts); father was a paralytic, due to apoplexy. There was no hereditary taint with reference to gout; the patient's mother weighed 175 pounds.

Previous History. The patient had had childish diseases; was treated for spinal curvature at fourteen years of age, and typhoid fever at twenty. During pregnancies was subject to fainting and nervous attacks.

Social History. Menstruation regular, but scanty, with cessations and recurrences; married and has three children, one of whom died of summer complaint. Patient uses tea, but no coffee; has been dieted without success, but has never adopted systematic physical exercise.

Present Illness. This began more than two years previously with fits of indigestion, accompanied by eructations of large quantities of gas; during the same periods she was highly nervous and despondent.

The *physical examination* of the viscera proved negative. The patient was moderately corpulent; circumscribed, deeply seated tumor masses were noted, one large and numerous small ones, especially in the legs. The urine analysis showed nothing abnormal, ex-

cept that this secretion was strongly acid. A blood examination was not made, although the patient did not present any obvious indications of anemia.

Treatment similar to that described under Case II was instituted, and after a loss of 5 or 6 pounds in weight about one-half of the small masses had disappeared, while a single large tumor showed considerable diminution in its dimensions. Unfortunately, treatment was discontinued at the end of two months, and hence the result was not satisfactory.

Case I, of this series, manifested symptoms which bear a close clinical resemblance to adiposis dolorosa, especially of the so-called nodular variety. For a considerable period of time while the patient was under my care I looked upon the case as belonging to this form of adiposa dolorosa, for the reason that localized nodular deposits of fat and pain were in evidence. On the other hand, the absence of any psychic disturbance and asthenia out of proportion to the marked polysarcia, and more particularly the complete disappearance of the fatty masses as the result of treatment directed to the extreme obesity, led me to exclude Dercum's disease.

In Case II, the fact that the circumscribed fatty tumor-like growths were, in the main, painless, and readily disappeared as the result of appropriate treatment, led me to believe that they were dependent upon the general obesity.

In Dercum's disease, a study of the postmortem lesions revealed,¹ as prominent features, "irregular atrophy of the thyroid gland, with here and there efforts at compensatory hypertrophy; also extensive interstitial neuritis in various nerves as they passed through the fatty tissue, and, in addition, degeneration in the columns of Goll. In the fourth case—that reported by Dr. Burr—there were present in the thyroid gland changes identical with those above described, interstitial inflammation of nerves, and, in addition, enlargement and gliomatous degeneration of the pituitary body."

The presence of hemolymph glands has also been noted in that disease; they are believed to exert a compensatory function. It must be granted that in Dercum's disease there are grave disturbances of the metabolic processes, and that lesions of the thyroid gland, as well as of the pituitary body, play a significant role in the causation of these disturbances of nutrition. In my own cases the course and results of treatment would seem to contradict the presence of any gross pathological changes in the lymphatic structures, and therefore stamp them as being essentially different in nature and tendencies from adiposis dolorosa—a comparatively benign condition as compared with the latter affection.

¹ Autopsy in a Case of Adiposis Dolorosa, by F. X. Dercum, M.D., and N. J. McCarthy M.D., AMER. JOUR. MED. SCI., December, 1902.

Again, it is scarcely conceivable that the mild, nervous and other associated features, as well as the tumor-like masses, which are observed in adiposis tuberosa simplex, and are so easily removed by dietetic and regiminal treatment, could have as an underlying causative condition grave lesions of either the thyroid gland or the hypophysis.

Lipomas, by their painlessness, soft, doughy, semi-fluctuating consistence, their more globular shape, as evidenced by the slight though distinct elevation above the surrounding surface and more or less lobulated character, may be excluded. Moreover, these tumor-like subcutaneous growths are not dependent on associated general obesity, and are not amenable to medicinal, dietetic, and regiminal treatment.

Launois and Bensaude² have described multiple symmetric fat deposits unattended by any disturbance of the general health, except in some cases, in which asthenia or fatigue, with or without irritability, apathy, and even hypochondriasis, have been observed. Adenolipomatosis, however, may be readily differentiated from the cases for which I have suggested the title, adiposis tuberosa simplex. In the first place, adenolipomatosis generally coincides with such widely various conditions as syphilis, albuminuria, gout, carcinoma, asthma, and varicosities, and only rarely with obesity. These tumefactions are symmetric in their distribution, with constant localization in the vicinity of the neck, axillas, and groins, adenolipomatosis being in all probability a disease of the lymphatic system.

On the other hand, the cases which I have herein reported manifest a totally different symptomatology and course. It is especially to be observed that the tumor masses in the condition which I have described show a different distribution (*vide supra*), and disappear as the result of treatment successfully directed to the associated, and most probably causally related, general obesity, while in adenolipomatosis the local masses of fat tissues seem to enjoy an individuality, "preserving their volume during conditions under which the patients generally become cachectic, and even in the presence of considerable emaciation secondary to tuberculosis, Bright's disease, etc."

C. Feer,³ after inviting attention to the fact that localized fatty tumors have been described under the titles of painful subcutaneous tubercle, irritable tumor, states that adiposis dolorosa is the association of nerve pain with obesity. This writer claims that in many instances the pain persists after the removal of the fatty tumors, and that the two symptoms—nerve pain and obesity—may arise at different times and run a course by no means concurrent. I have in my possession notes of cases resembling adiposis dolorosa in which

² *Nouv. Icon. de la Salpêtr.*, 1900.

³ *Rev. de méd.*, August, 1901.

the symptom pain has undergone decided exacerbations and remissions despite the persistence of the fatty tumors. These cases, it seems to me, are to be differentiated from those which I have reported, or those dependent upon obesity, in which a disappearance of the localized fatty tumors is accompanied by a permanent subsidence of all pain (when present), usually moderate in degree.

It may be questioned whether the results reported in these cases may be properly classed as cures. The concurrent recurrence of the localized fatty tumors and general obesity in Case II and their complete disappearance for a second time indicate that a cure is possible in all cases in which the probable cause (polysarcia) is amenable to hygienic and regiminal measures. In Dercum's disease the usual results of efforts at treatment are diametrically opposed to those obtained in my cases.

THE CHOICE OF OPERATION IN PYLORIC STENOSIS.¹

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PYLORIC obstruction, whether of benign or malignant origin, is one of the most important problems in gastric surgery. I was influenced in choosing this subject for my paper: (1) By the fact of its very general interest to the profession at large; and (2) because the whole field of gastric surgery is manifestly too large to be satisfactorily covered in the limited time at my disposal. Indeed, it has many phases, the consideration of which could very profitably occupy more than the whole of my allotted time. For the sake of brevity, I shall still further limit myself to a consideration of strictures of the pyloric orifice of an organic nature, leaving entirely out of account the interesting but indefinite group of functional and spasmodic affections.

By common consent, and from its essential mechanism, the management of pyloric stenosis is placed beyond the border line of medicine, within the domain of surgery; and rightly so, since it is clearly a surgical problem, pure and simple. Even the most ardent advocate of medical treatment will hardly claim more than temporary benefit from therapeutic measures alone. Medicine cannot solve a problem in mechanics. For permanent relief from his malady the patient must turn to the surgeon. The sooner this fact becomes firmly established in the medical mind, and is allowed to control its action, the sooner will one of the chief causes of that standing reproach to the medical profession, the "chronic dyspeptic," be removed.

¹ Read at a meeting of the Virginia State Medical Society, November 14, 1907.