

Nonreaginic Allergy in Theory and Practice

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The syndrome of nonreaginic allergy is commonly seen by the physician and is often of great concern to the patient. Diagnosis by means of the pulse rate and alleviation through avoidance of offending allergens is discussed.

BEFORE PROCEEDING with the main topic of this paper, it seems wise to briefly review our concept of allergy.

This concept has, in our opinion, not changed materially from that described by Lucretius about 2000 years ago, and stated in classical English sixteen centuries later by Beaumont and Fletcher: "What's one man's poison, Signor, is another's meat or drink."

The specificity of allergic sensitivity seemed to be most satisfactorily explained by the assumption of Von Pirquet and Schick, that, in serum sickness at any rate, the tissue injury reflected in the symptoms was due to irritation produced by the interaction of antibody and antigen. Actually, such a specific mechanism has been demonstrated in atopic hayfever and asthma and in serum sickness.

However, in contact dermatitis, bacterial allergy and familial nonreaginic food-allergy, the hypothetical antibodies have not been demonstrated; and in the last-named type of allergy, according to Coca's recently published observations, an antibody mechanism can be reasonably excluded.

It would thus seem premature to make an antigen-antibody mechanism a part of the *definition* of allergic disease.

According to Coca, idioblapsis differs in the following respects from atopic allergy:

1. The hereditary influence present is independent of atopic inheritance and may be coexistent.
2. Allergic antibodies (reagins) are not demonstrable.
3. Many of the symptoms differ from those in the atopic group.
4. The allergic reaction is preceded, or accompanied by, acceleration of the pulse.

While tachycardia in response to environmental contacts was observed many years ago, the recognition of this as a definite, scientifically determinable, allergic reaction was first described in 1935 by Arthur F. Coca of Pearl River, New York.

At that time he observed a pulse rate of 180 together with anginal symptoms in a patient to whom dilaudid had been administered. Recurrence of symptoms, together with acceleration of the pulse was later traced to other medications and to certain foods.

Since then the subject has been extensively investigated by Coca and to a lesser degree by a few others. It has not received publicity commensurate with its importance, due perhaps to radical changes in medical thought necessitated by its recognition; and to formidable difficulties inherent in its practical application.

In spite of this the alert physician must be familiar with these concepts, whether or not he has the time or inclination to apply them. A few of the radical changes in thought demanded by these findings may be listed as follows:

1. Our conception of the "normal" pulse rate and pulse range must be revised.
2. Many disease states heretofore classed as idiopathic (in reality meaning unknown) must now be recognized as allergic.
3. One more step forward has been taken in discovering some of the causes of our so-called degenerative diseases.
4. The widespread incidence of this type of allergy—affecting as it does about 90% of the population—is startling. In contrast, major atopic disease is recognized in only 7% to 10%.

SYMPTOMATOLOGY

The symptoms associated with idioblaptic tachycardia may be negligible or they may be prostrating and of serious import. Many of them have, in the past, been ascribed to neurasthenia—an observation which may eventually help to bring psychiatry into a truer perspective with general medicine. Emotional tension aggravates allergic states: allergic states create tension and probably predispose to inefficient handling of daily problems.

The symptoms found associated with pulse allergy are many, but worth enumerating. Others will undoubtedly be added as our knowledge increases. One of the most outstanding is an overwhelming, unexplained fatigue. Patients awaken unrefreshed and more tired than when they went to bed. Or they may be as exhausted a short time after breakfast as though they had played three sets of tennis.

Vague fear sensations, emotional depression, nervousness, mental confusion and lapse of memory often torment people with the thought that they are ready for an institution.

Atypical headaches, neuralgias and myalgias together with palpitation of the heart, *hypertension*, extra-systoles and a rapid pulse often simulate a psychoneurosis.

Respiratory symptoms vary from stuffy nose, chronic sinusitis, frequent colds, chronic laryngitis and chronic bronchitis with its frequent cough, to frank asthma.

So-called canker sores are frequent and often accompanied by a coated tongue, and gingival swelling and irritation. Farther down the gastrointestinal tract allergic reactions may manifest themselves as indigestion, colitis, gall bladder colic and constipation—the latter being very frequent.

In the genitourinary field urinary frequency, hematuria and ureteral colic are encountered.

When the skin is the shock organ, urticaria, giant hives and fixed eruptions may be found.

Diabetes and arthropathies can be produced or aggravated by allergic reactions. Coca has reported that several diabetics have become sugar free after a saccharin sensitivity was uncovered.

Finally, behaviour problems in children and nervous breakdowns in adults should be combed for an allergic factor before accepting them as the sole result of other influences.

All of the above symptoms or conditions have been discovered and relieved in one or more patients at various times by the pulse method; and have been reproduced by voluntary contact with the offending allergen once it had been discovered.

The substances capable of evoking the pulse reaction are legion.

All foods may cause trouble, although the staple articles of diet are often chronic offenders.

Drugs and medications of all sorts are suspect.

Inhalants such as house dust, insect sprays, paint fumes, perfumes, exhaust gases, coal and natural gas, food odors and tobacco smoke are potent allergens. Allergy to the latter is particularly common, averaging 80% in my preliminary series of 180 cases.

Curiously enough, pollens seem to act through an atopic rather than an idioblastic mechanism.

Diagnosis, unfortunately, is rather complicated and requires an intelligent, cooperative patient, as well as much time and experience on the part of the physician. However, the presence of this type of allergy can be readily suspected by means of a pulse chart.

A difference of twenty beats or more between the high and low pulse for the day, or a single reading of 90 or more is almost pathognomonic of idioblastic allergy.

In the case of smokers, a twenty-four or forty-eight hour chart followed by a smoking test in the office suffices to identify those hypersensitive to tobacco. While some are sensitive to this alone, smoking often masks food allergens which may be discovered when smoking has been eliminated.

Since reagins are not demonstrable, skin tests are negative unless atopy is also present. The appearance of a specific rise in pulse rate after contact with an offending allergen is depended upon to identify these substances.

In the case of inhalants, the tachycardia appears within a few minutes; whereas after foods or drugs twenty to forty minutes is necessary for digestion and absorption of the allergen before the reaction takes place.

The duration of the tachycardia varies with the allergenic substance, the frequency of contact and the makeup of the individual. In the case of foods, the effect may last for one hour, or as long as four days. This carry over complicates diagnosis.

Omission of an allergenic food from the diet for several weeks often results in temporary loss of sensitivity. Thus the tachycardia and symptomatology may not appear following its first reintroduction, but only after it has been eaten two or three times in succession. This is known as the latent period.

When an allergenic food has been eaten daily for some time and is then omitted for one or two days, the pulse response to its reingestion at this time may be marked, as may any symptoms caused by it.

Caution must therefore be exercised in cases with severe symptoms such as epilepsy.

METHODS OF INVESTIGATION

All patients are requested to fill out 48 hour pulse charts. Instruction in pulse-counting is given and checked for accuracy. Those showing evidence of pulse allergy and complaining of symptoms which might be attributable to this condition are asked to cooperate in a search for food offenders. Smokers are tested and if positive asked to limit smoking to between meals and the evening.

In some cases the preliminary pulse charts may suggest the elimination and subsequent testing of certain foods. Otherwise one may proceed in several ways:

1. If the pulse drops to normal after meals, staple foods may be tested separately between meals and in the evening.
2. Meals may be divided into fruit, protein and carbohydrate and suspicion thus directed to one of these groups.
3. Single foods may be taken six or eight times daily and the pulse charted for each one.
4. In severe cases with continuous tachycardia charting may be done for several days while only two or three foods such as beef, rice and water-packed canned pears are consumed.
5. Rarely a complete fast may be indicated.

If dust and feather sensitivity is suggested by a high waking pulse rate, inhalant tests are cautiously tried with a pillow and the dust bag from the vacuum cleaner. A more complicated but successful method is to "Dust-Seal" the bedroom and observe the effect on pulse rate and symptoms.

COMPLICATING FACTORS

In searching for food allergens the effects of other pulse-accelerating factors must be carefully watched for and recognized if possible.

These include house dust, perfumes, scented soaps, powders and toilet water, tooth paste, nose drops, exhaust fumes, gas fumes, alcohol, drugs such as laxatives, flowers and tobacco smoke. In one of my early cases a pulse rise after meals was found to be due solely to a peppermint-flavored tooth paste. Fortunately, the nasal symptoms were due to peppermint, but the elimination diets used were a bit superfluous.

Virus infections such as the common cold and recurrent sinus infections may cause pulse acceleration.

The presence of asthmatic dyspnea, as is well known, usually increases both pulse and blood pressure.

Emotional crises may cause a tachycardia in labile individuals. It should be noted, however, that this effect is often drastically reduced following the discovery and removal of food allergens.

Exercise of course affects the pulse rate but there is a marked difference between the normal individual and the sufferer from nonreaginic allergy. Upon arising from a sitting position the pulse of the normal individual varies only a few beats, and returns to normal within three minutes after vigorous physical effort. In contrast, the heart rate of allergic individuals may jump fifteen or twenty beats per minute just with the effort of standing up and the tachycardia following severe exercise may last for one-half hour or more.

Anxiety neurosis may confuse the picture and cause a

marked tachycardia and hypertension which subside with the solution of an emotional problem.

Neurotic individuals may refuse to cooperate for fear they will develop a neurosis. A desire for rapid cure without any effort on the part of the patient, together with understandable unwillingness to change personal habits, makes prolonged investigation or treatment impractical, unless complaints are disabling or very unpleasant. The average individual just won't take the time or make the effort necessary for diagnosis and treatment.

The presence of a toxic, substernal goitre must always be considered. Pulmonary fibrosis and emphysema may produce tachycardia. Other indefinite factors influencing the pulse rate may be fatigue, the menopause, vitamin B complex deficiency and perhaps endocrine exhaustion.

Lastly, the latent period, summation effects, suppression of minor allergens by major ones and the carry-over period all make diagnosis more difficult. The carry-over effect of alcohol is often marked and should be remembered. In several cases sun baths have produced a prolonged rapid pulse. One patient had a twenty-four hour carry-over from just sitting in the shade beside a chlorinated swimming pool.

TREATMENT

Reliance is placed primarily on avoidance of foods, drugs, and inhalants found to produce both *symptoms* and *tachycardia*. Care must be taken to supply an adequate diet with supplementary vitamins and minerals as indicated.

After allergenic foods have been omitted from the diet for several months, they may often be consumed once or twice weekly without reproducing symptoms. Dilute hydrochloric acid or digestive enzymes are occasionally useful.

Dust sensitive cases benefit greatly from the use of "Dust-Seal" or similar products applied to the bedroom and house furnishings and from the usual dust precautions. This procedure has enabled several patients to obtain complete relief from injections of very dilute dust solutions, whereas formerly, attempts at hyposensitization were always followed by an exacerbation of asthma.

Histamine has been of some help. "Piromen" has proven to be useful in some cases, but seldom controls severe reactors.

Attention to general health is of great importance. Patients should be encouraged and given the opportunity to unburden themselves of anxiety, frustration and situations leading to tension.

Intractable cases of food-allergy may be benefited by a unilateral lumbar sympathectomy. Coca advocates a stellate ganglion novocain block first. He has found that when food-allergy is responsible for a tachycardia, such a diagnostic block is followed by a drop in pulse rate for twenty-four to forty-eight hours. During this time only major allergens will cause a pulse rise and identification should be possible. He believes this procedure indicates what may be expected from a sympathectomy. Unfortunately—and curiously enough—the operation has little effect on inhalant sensitivities. It should be

followed by more pulse studies to identify remaining food allergens. As a rule, these are comparatively few in number and may be avoided.

While knowledge of the physiological basis for this type of allergy is meagre, the following statements have some basis in fact:

1. There is a strong familial tendency.
2. Histamine is involved in the reaction to some extent as shown by the fact that injections of this substance may relieve symptoms due to minor allergens, but not to major ones.
3. The allergic reaction seems to be primary in the sympathetic ganglia and secondary in the shock organs. This is suggested by the fact that the response to inhalant allergens usually occurs within one minute, as shown by the response to tobacco smoke; and that lumbar sympathectomy may markedly reduce the number of food allergens to which a patient responds.

In connection with sympathectomy it might be pointed out that some of the failures following this procedure, when used in hypertensive cases, are probably attributable to lack of recognition of the remaining food or inhalant allergens which are still operable in maintaining the high blood pressure.

CONCLUSIONS

1. As shown by specific tachycardia, idioblastic allergy to foods, inhalants and other substances is widespread.
2. Many symptoms, some of them serious and others potentially serious, accompany this tachycardia. Most of these are reversible if the allergenic contacts are discovered and minimized before organic changes have taken place.
3. The widespread use of tobacco exposes most of the population of this country to tobacco smoke. Inasmuch as about 80% of smokers show specific tachycardia to the use of this substance, its potential harmfulness is obvious.
4. By means of pulse studies, many symptoms not heretofore thought of as allergic are being brought into that category.
5. The presence of nonreaginic allergy may be one of the important explanations for the lack of correlation known to exist between dermal food tests and clinical sensitivity.
6. It is to be regretted that so far the main therapeutic weapon to combat idioblastic allergy is discovery and avoidance of incriminated allergens.

For those with serious symptoms and many sensitivities, conservative, unilateral, lumbar sympathectomy followed by a pulse-diet study offers much promise and may permit diagnosis and relief in otherwise hopeless cases.

7. It is, of course, realized that other factors are operative in each individual, and that successful treatment depends upon recognition of as many as possible. Nevertheless, the discovery and treatment of nonreaginic or idioblastic allergy may result in the satisfactory solution of many obscure problems.

Overweight and Underweight As Manifestations of Idioblaptic Allergy

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The symptom-complex catagorically known as idioblapsis, a part of allergic disorders, is described. Particular attention with its relationship to over and under weight is given, with case histories.

GENERAL CONSIDERATIONS

SINCE 1935 a special medical diagnostic art with special rigorously tested rules of interpretation has been developed upon the proposition that the pulse-rate is often specifically affected (usually accelerated) by foods and other substances; which, in such a circumstance, can frequently be identified as the specific exciting causes of a number of life-spoiling and life-threatening conditions (migraine, eczema, epilepsy, multiple sclerosis, circulatory hypertension, diabetes and others).

This special method is practised essentially by exposing an individual to various foods, inhaled substances (especially tobacco smoke) etc.; by observing which of these cause acceleration of the pulse-rate, and by advising the individual to avoid them. If, under such avoidance, any abnormal condition disappears, that condition is provisionally classified as a local manifestation of an hereditary disease-entity, which has been named idioblapsis* (idioblaptic allergy). That classification is then confirmed if the conditon promptly returns upon reexposure of the individual to the pulse-accelerating materials. This confirming experiment is frequently omitted in practice.

It may not be superfluous to describe briefly the routine practice of the pulse-dietary technic which has been found useful in most cases and to list a few helpful rules of interpretation.

When the patient telephones for his first appointment, he is given the following instructions:

1. He *must* stop smoking entirely until the cigarette test, which will be made later.
2. He counts his pulse (one minute), a) just before each meal; b) three times after each meal at half-hour intervals; c) just before retiring; d) just after waking, before rising in the morning. All pulse counts are to be made sitting excepting the important one on waking, which is made recumbent, before sitting up.
3. He records all the items at each meal.
4. He continues these pulse-dietary records for three to five days with the usual three meals.
5. He then makes single-food tests for one or two whole days as follows: beginning early in the morning after the "before rising" count, and continuing for 12 to 14 hours, according to circumstances, he eats a small portion of a different single food *every hour*; for example, slice of bread, glass of milk, orange, 2 table-spoonfuls of sugar in water, a few dried prunes (or a peach), egg, potato, coffee, meat, apple, banana, etc. He counts the pulse *just* before each eating and again one half-hour later.
6. He brings the whole record with him for his first appointment, which usually lasts two or three hours and which is not spent in examinations (those having been made by other competent physical diagnosticians), but in explanations of the pulse-dietary method.

A physician who is experienced in the interpretation of the pulse-dietary record can usually determine from the examination of the records, at the time of the appointment, whether the solution of the case will be relatively easy or difficult. A few easy cases have been entirely solved at this single appointment, the resulting instructions having brought complete and lasting freedom from all the allergic symptoms.

The following tentative rules of technic and interpretation of the pulse-dietary record may be helpful to those who

*More than 90 percent of the white population have been found to be affected by this disease. 1)

are beginners in the art. One must not, however, forget the occasional *exceptions* to these rules.

RULE 1. If the pulse-count taken standing is much greater than that taken sitting, this is a positive indication of present "allergic tension" (Sanchez-Cuenca).

RULE 2. If the daily maximal pulse-rate is constant (with-in one or two beats) for three days in succession, this indicates that all food-allergens have been avoided on those days.

RULE 3. If the ingestion of a frequently eaten food causes no acceleration of the pulse, that food can be tentatively considered nonallergenic for the individual (Exceptions: (a) latent sensitivity to a "minor" food-allergen; (b) shock tissue "exhausted" by a recent major reaction).

RULE 4. If exposure to "house-dust" causes irregularity of the pulse, this regularly excludes the *commonly* eaten foods as allergens, since house-dust is, *at least usually*, a "minor" allergen; hence it does not affect persons who are protected by stronger reactions.

RULE 5. The pulse-reaction to an inhalant allergen is *more likely* to be of short duration than that to a major food allergen.

RULE 6. Pulse-rates that are only 6 points above the estimated *normal* daily maximum should not be ascribed to foods, but to an inhalant.

RULE 7. If the minimum pulse rate does not regularly occur "before rising," after the night's rest, but at some other time in the day, this usually indicates sensitivity to the "house-dust" in bed-mattresses or pillows.

The record of one relatively easy case (Tables 1 and 2.) illustrates the problem of interpretation. In this case the single-food testing could be omitted.

CASE HISTORY OF MRS. E. E.

Mrs. E. E., age 32, gave an allergic history of urticaria (twice after having eaten shrimp), canker sores, abnormal tiredness and headaches with vertigo. Her chief complaint was an unsightly and annoying eruption about the mouth and chin which was more pronounced at the time of the menstrual period, and was completely absent during her pregnancy. There were papular elevations set in flat areas of congestion, which varied in color from pale pink to rather "angry" red.

Over a period of 12 days the patient noted, with more or less regularity, the routine pulse-rates and the items of her usual diet. Part of this record is presented in Tables 1 and 2.

The record is remarkable for the extent of the information it contains both as to the allergenic and the nonallergenic foods for this patient. No less than 19 foods could be seen in table 1 to be probably nonallergenic (confirmed in table 2) while six could be identified as most probably allergenic in table 1.

Taking 56 provisionally as the lowest count and adding 12 beats as a possible, normal range, produced 68 as the estimated normal maximal count. It was noticed that after dinner on May 11, 13, 17, and 20, the count did not exceed 68 or 69, which suggested that no allergenic foods were eaten at those meals. The patient was instructed to limit her diet to the items con-

tained in those four meals, which she did on the five days May 29 to June 2. It is seen that on the three days on which the record was complete, the maximal rate was the same—70, indicating that no allergenic food was eaten on those days. The highest count on the other two days was 68, also indicating an allergen-free diet. The normal low count turned out to be not 56, but 58.

It is seen also that in a number of instances, the abnormally high counts could be attributed to individual foods in the respective menus, which are not included in the list of non-allergenic foods. Thus orange (Br. May 11), pineapple (Br. May 12), apricot (Br. May 13), cinnamon (Br. May 15), grapefruit (Br. May 19), chicken (L. May 17 May 19). It is noteworthy that this patient (like another who has confirmed the observation in several tests) can eat peach (D. May 17), but not the closely related apricot. The patient continued to avoid five of the six items just mentioned; occasionally eating chicken which has not affected her skin. Her eruption gradually disappeared and it has not recurred in the succeeding two years.

Scratch tests were carried out with concentrated glycerinated extracts (Lederle) of orange, pineapple, cinnamon, chicken and the glycerin-control solution. All of these tests gave negative results.

This patient did not consult a dermatologist, hence a dermatologic diagnosis cannot be offered.

The record would seem to indicate that the pulse in that individual was not effected by digestion, *ordinary* physical activity or psychological influences. The five day record is that of a wholly nonallergic normal pulse, which reaches its exact maximum (70) at least once every day. There is not even a need for the usual statistical consideration of observational error. One sees also that the variations of the counts *within* the normal range of this patient's pulse-rate (58-70) are of no medical diagnostic significance.

OVERWEIGHT

The public is being taught through the several media of communication in the United States that overweight is due to *overeating* and this impression is confirmed in the common advice by physicians to cardiovascular cases to "lose weight." That advice implies that overweight is subject to the will-power control of the patient; and it is generally supplemented with specific instructions to reduce the caloric-intake.

Yet experience with the use of the pulse-dietary survey and the avoidance of all pulse-accelerating foods with patients who happened to be "overweight," indicate that this condition is a manifestation of idioblastic allergy. In short, persons with various "chief complaints" (indigestion, migraine, eczema, hypertension etc.) who have identified and avoided all their pulse-accelerating food-allergens and so have been entirely relieved of their chief symptoms, have reported with some astonishment that they have lost their excessive weight in spite of an unrestricted caloric-intake.

Some medical authorities limit their nutritional attention to what may be called "obesity"; that is, the extreme cases of overweight, paying no attention to the lesser degrees that

are sometimes referred to as "pleasing plumpness." Among the listed "causes" of obesity is mentioned "endocrinopathy" involving especially the thyroid and pituitary glands and the "endocrine imbalance" of women in the child-bearing period. However, there is no surmise as to the cause of these "causes"; and the usual "treatment" of the overweight consists in the restriction of caloric intake, which cannot be thought to correct the reputed endocrine abnormality but serves merely as a symptomatic corrective, which, by the way, is the principle of most of the therapy of the chronic illnesses.

A few brief case histories will illustrate the principle of the food-allergic (idioblaptic) etiology of overweight.

Case 1. Mrs. G. J., aged 33, had experienced urticaria and occasional canker-sores, and was annoyed by an estimated

overweight of 10-15 lbs. Her chief complaint was a dry, scaling and peeling, fissured dermatitis of the hands. There was occasional itching. Her normal pulse-range was estimated as 62-74. Her food-allergens and respectively observed pulse-maxima are sugar-cane (92), corn (84), pea-bean (82), peanut (82).

These four foods were regularly avoided after March 11, 1946, and the dermatitis soon disappeared. On September 24, 1946 her hands were still quite healed, and they have remained free since then, with one exception. On that occasion she tested cane-sugar once, and the dermatitis began to appear on the following day. She eats corn, pea and bean very seldom, and no dermatitis follows these single tests, although the pulse is markedly accelerated by corn and mildly so by pea and

TABLE 1.
Pulse record of Mrs. E. E. on an unrestricted diet

	May 11	May 12	May 13	May 15	May 17	May 19	May 20
Before Rising	Pulse 61	Pulse 57	Pulse 64	Pulse 56	Pulse —	Pulse 70	Pulse 66
Breakfast	68	70	70	69	75	74	68
30'	75	74	73	78	71	74	76
60'	80	78	76	75	71	77	73
90'	76	71	81	73	62	72	68
Diet—	orange, coffee, wheat-cereal	pineapple, bacon, egg, bread, coffee, crab-apple jelly	apricot, bread wheat-cereal, crab-apple jelly, coffee	apple-sauce, cinnamon-toast, coffee, sugar	wheat-cereal, coffee, (fudge)	egg, grapefruit, wheat-cereal, apple-butter, coffee	egg, coffee, coffee-cake
Lunch					80		74
30'		75	69	68		68	
60'		89	65			76	
90'	69	75	74	78		78	
Diet—	beef, macaroni, tomato, lettuce, cucumber, vinegar, pepper, potato, coffee, butter	chicken, noodle, tuna-fish, milk, bread, lettuce mayonnaise, olive, chocolate, pickle	tomato, potato, carrot, pea, cake, cream, wine	clam-chowder, liver-wurst	tomato, cheese, rye-bread, tea, cheese-cake	chicken, rice, cream-cheese, apple-butter, tea	beef, potato, tea, tomato, marsh-mallow, chocolate-pudding
Dinner							
30'	65	70	60	65	64	76	66
60'	69	73	64	66	68	78	68
90'	68	74	68	84	68	75	66
Diet—	tuna-fish, olive, tomato, celery, mayonnaise, apple-juice, potato	lamb, potato, barley, beets, pineapple, walnut-cake	lamb, barley, macaroni, spinach, celery, milk, coffee	beef, potato, milk, spinach, peach, cake, cinnamon, coffee, sugar	ham, potato, carrot, apple, peach, cream, cake, coffee	mackerel, tea, potato, tomato, ice-cream	beef, potato, corn, coffee, chocolate-pudding marshmallow

TABLE 2.
Pulse record of Mrs. E. E. on selected diet

	May 29	May 30	May 31	June 1	June 2
Before Rising		Pulse 60	Pulse 58	Pulse 58	Pulse 60
Breakfast		66	68	67	68
30'		67	60	69	68
60'		70	62	70	
90'		66	61	68	
Diet—		pep-cereal, coffee, bread	pep-cereal, coffee, sugar, bread	pep-cereal, coffee, cake	wheat-cereal, coffee
Lunch					
30'	62	64	66	64	
60'	65	66	66	66	
90'	68	69	68	68	
Diet—	apple, lettuce, mayonnaise	beef, potato, carrot, onion, corn, coffee, apple-pie	lettuce, bread, mayonnaise, sardines, apple-juice, rice	carrot, beet, lettuce, mayonnaise, apple-juice	
Dinner					
30'	66	64	66	64	66
60'	62	62	68	68	68
90'	64	64	68	66	68
Diet—	beef, potato, corn, coffee, apple-pie	lamb, tomato, potato, coffee, apple	tomato, lamb, potato, coffee, beets	ham, potato, carrot, apple, mayonnaise, coffee	beef, carrot, pepper, lettuce, potato, apple-sauce, coffee, mayonnaise
Retiring	60	58	60	60	62

bean. She has lost 12 lbs. of her excessive weight. Cutaneous tests with the four pulse-accelerating foods gave negative results.

Case 2. Miss A.C.M., aged 50; height about 5 ft. 3 in.; complained of migraine (left-sided with vomiting, marked abnormal tiredness, neuralgia, constipation, chronic rhinitis and occasional vertigo. The pulse-accelerating foods were found to be cow's milk, cereals, cane-sugar, citrus fruits, beef, lamb, fish and yeast. After avoidance of these foods and the substitution of goat's milk and beet sugar her pulse-range was 64-80 and all of the above mentioned symptoms ceased. There had been a moderate overweight at 139 lbs. In the first week of avoidance there was a loss of $4\frac{1}{2}$ lbs. of weight which was interpreted as a loss of water associated with allergic edema. In the next three weeks there was a gradual weight fall to 129 $\frac{1}{2}$ lbs. where it remained stationary. Her diet, which she ate with no restriction of quantity, comprised: goat's milk, beet sugar, egg, pork, potato, yam, banana, tomato, pea, bean, carrot, spinach, date, prune, apple and lettuce. It is pertinent to emphasize that this patient always ate to her appetite's content, never concerning herself about her caloric-intake, particularly with respect to carbohydrates and fat.

Case 3. Mrs. M.D.B., aged 74, height 5 ft. 3 in., complained of "bilious attacks" with fainting spells; abnormal tiredness, constipation, migratory neuralgia and heartburn. Her obesity was considered by her to be a natural accompaniment of her age. After avoidance of her pulse-accelerating foods (milk and other dairy products, citrus fruits, carrot, beet, spinach, asparagus, and onion), all of the above-mentioned symptoms ceased and her weight dropped, rapidly at first, then gradually from 185 to 152 lbs., where it has remained stationary through the years since 1941. Carbohydrates and fats have been unrestricted.

Case 4. Dr. C., aged 75, height 5 ft. $7\frac{1}{2}$ in., had controlled his numerous allergic symptoms (migraine, vertigo, hypertension etc.) by limited sympathectomy followed by avoidance of pulse-accelerating foods and inhalants. At that time (1950) he was somewhat concerned over a moderate obesity (168 lb.). Suspicion was directed toward strawberry, which only occasionally seemed to cause gastric discomfort—the pulse being affected by unidentified inhalants and so not an entirely dependable criterion. Strawberry was finally eliminated from the diet, since when the weight soon fell to 154 lbs. where it has remained through the succeeding years. Carbohydrates and fats have been quite unrestricted.

Case 5. Mrs. L. A., aged "over 50," height 5 ft. 10 in. The outstanding "complaints" were her overweight (235 lbs.) and a marked abnormal fatigue and weakness. There was also a circulatory hypertension 190/110. The food-sensitivities were few, and negligible with respect to this inquiry. She does not eat walnuts and pecans "because they do not agree"; and she avoids beets, spinach and cherries, which "make her stiff and sore." An exhaustive pulse-dietary testing over a period of years has revealed no other pulse-accelerating food-sensitivities. Consequently *there have been no other dietary restrictions.*

However, there are a number of inhalant sensitivities, and some of these excitants are difficult or even impossible to avoid entirely. Among these are some pollens that are prevalent through several months of the summer; house-dust, which seems to have been a major excitant, and which has been largely curbed with Dust-Seal; and coal-gas, which it has not been possible to avoid completely. Contact with the pollens has been lessened through the use of air-filters and closing doors and windows of the house during the day.

After such measures had been instituted the blood-pressure fell to 180/85 then 160/95 and the weight has lessened by 25 lbs. to 210, which is still definitely "overweight." Also the patient's fatigue and weakness have been greatly relieved. There has been no medication in this case. The normal pulse-range which now frequently prevails is unusually low, 40-51. Previous to the institution of the measures of inhalant-avoidance the pulse was commonly between 60 and 70—occasionally 78.

UNDERWEIGHT

Case 6. Mr. A. R., chemist, aged 28. In August 1939 he said that through the past six months he had suffered almost constant, severe headaches, nervousness, chest-pain, extra systoles, vertigo, heartburn, occasional abdominal pain and neuralgia of legs and arms. In that interval he had lost 25 lbs. of weight. Only two food substances accelerated his pulse; milk and yeast. Upon avoidance of these all of his symptoms ceased, some of them recurring briefly immediately after the unwitting consumption of milk in an omelet, which was taken as pure egg. Within about two months his weight had increased by 25 lbs. to an estimated normal height-weight ratio. Unfortunately, this man's record has been misfiled and the exact weights and measurements are not accessible.

Case 7. Mr. A.L.K., aged 54, height 5 ft. 10 in., came for consultation Oct. 7, 1946, suffering from a dry, scaly, slightly inflamed eruption, affecting ears, arms, body and legs. He was obviously undernourished, weighing 140 lbs., which is about 30 lbs. under the estimated normal weight* for a man of his age and height. His blood-pressure, at his first visit was 180/108. Two weeks later it was 176/100. His company physician found it 160/90 at that time. His pulse-accelerating foods are eggs, fowl, fish, pork, beef, lamb, coffee, corn, potato, onion and asparagus.

After elimination of all of these foods from his diet he has depended for protein upon milk, cheese, pea, bean, peanuts and other nuts. Improvement of the dermatitis was noticeable on October 20, with marked improvement five days later and complete healing thereafter. By October 25 the company physician found his blood-pressure to be 156/86 and 11 days later 128/78.

On February 17, 1947 the patient reported recurrence of the dry, scaly eruption on left hand, legs and body. The blood-pressure had risen to 160/84. He stated that he had been indulging for some time in wine, without making the customary pulse-test, and he agreed to discontinue it. This he did and on March 9 he reported that the eruption had again

*See Thomas D. Wood, in *Cyclopedia of Medicine*, vol. 3, page 525.

disappeared and that his company physician had found his systolic pressure to be 130. Since that time there has been no recurrence.

Notwithstanding the sharp restriction of his diet he gained 12 lbs. weight in the first three weeks of "specific food-avoidance," and since then he gained an additional 13 lbs., arriving at a stationary 165 lbs., which is near the estimated normal.

Case 8. Miss R.E.A., aged over 40, height 6 ft., had suffered anginal pain (no electrocardiographic examination), fatigue, tachycardia, arrhythmias, anorexia, and vomiting without nausea. She had lost 46 lbs. of weight from an original underweight of 126 lbs. to about 80 lbs. She regained 40 lbs. of the lost weight in the next 5 years, due, she believes to the "accidental" avoidance of inhalant allergens—"exposure to certain perfumes causes marked, prolonged anorexia—for two days."

She then began to apply the pulse-criterion in the identification of specific excitants, though depending usually upon symptomatic consequences in final judgment. Upon avoidance of pecan and walnut, ginger, chocolate, commercial candies, salad-dressings, ice-cream and jellies etc.; also "house-dust" (by Dust-Sealing), pollens and perfumes, her weight gradually increased by an additional 20 lbs. to 140 lbs. at the pres-

ent time. Her general health and well-being are greatly improved.

COMMENT

The foregoing case histories, which have been selected from a somewhat larger number of similar ones, suggest that both overweight and underweight may be manifestations of the recently recognized category of allergic disease named idioblastosis. It may be reasonably surmised that the overweight in the described cases represented not only the abnormal deposit of fat due to some allergic derangement of the organs (endocrine?) that control that function, but also a diffuse deposit of allergic edematous fluid.

Underweight, on the other hand, would seem to be caused by some allergic interference with the normal utilization of the food consumed, or by allergic anorexia.

Knowledge concerning the exact manner in which these opposite effects are produced would seem, for the present, of less practical importance than the observation that both may be corrected through avoidance of food-allergens identified by their constant pulse-accelerating action.

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