

paralyzed was a great strain on her, and her mother's present state of health is another burden.

Examination.—Stomach contents show free hydrochloric acid absent, total acidity 30, but no apparent atonic condition; some mucus, no lactic acid or Oppler-Boas bacilli. The bowels move every day without aid. The reflexes are normal; the pupils react to light and accommodation. Head, thoracic and abdominal examinations negative. There is one large, soft lipomatous mass over the left collar bone and a smaller one (9 by 5 cm.) on the opposite side, standing out clearly. These are painful and do not pit on pressure. A mass at the back of the neck is extremely sensitive to touch and pressure. The patient has the sensation of some live moving thing in the occipital region. She exhibits in a less marked degree, however, the same neurotic symptoms first observed in her mother. Examinations of blood and urine show nothing. Blood-pressure 149 mm. Hg; hemoglobin 80 per cent.

CONCLUSIONS⁴

If a diathesis existed in the daughter, and nervous strain is considered of etiologic importance, worry over her mother's ill health may have some bearing on her present condition. She took complete charge of her mother during the two paralytic attacks. Then it appears that the birth of her child caused extensive trauma, which is considered by some as of importance.

Most insistent but guarded questioning failed to elicit any past luetic history, in both cases, any miscarriages or any knowledge of a family history of epilepsy or goiter. Alcoholic excess can safely be excluded here as a possible causative factor. Four attacks of pneumonia and diphtheria in the mother, also the two later paralytic attacks, are to be considered.

These two cases are mild, but the symptoms are marked, much more so in the mother, however. In Case 2 the disease has occurred before the menopause. (One case in a patient as young as 12 years of age is on record.) The two hemiplegic attacks occurring in Case 1 would suggest a sclerotic condition not found present in the peripheral vessels.

Although there was a marked increase in weight in both cases, it does not appear in Case 1 to be the adiposity which Marburg found at autopsy to be associated in his case with a tumor of the pineal gland. I cannot account reasonably for the two attacks arising from a general pituitary involvement. In neither case does the thyroid exhibit macroscopic changes. The masses in the older woman are not nodular, but are firmer and less sensitive than in Case 2.

The gastritis, which was real in both cases, with age and poor mastication as predisposing factors, responded to treatment (lavage, diet, strychnin sulphate, etc.). The blood-pressure is high in both cases.

The asthenia, the gastric disturbances, areas of hyperesthesia, and the frequent attacks of melancholia, with the physical findings, convince me that we are dealing with true adiposis dolorosa.

Surgical aid has been attempted.

In one case the removal of the breasts and later a mass from the axillæ was followed, for a time at least, by cessation of the distressing local symptoms.

Most observers agree that thyroid extract is a benefit in some cases. Price has seen five patients out of seven distinctly benefited by its use. The present knowledge of the pituitary is too limited to make its use of therapeutic value. Salicylates and bromids are of use. Massage of a gentle nature is advocated by some and a

properly regulated exercise and diet should be insisted on in all cases.

Most patients are obese; the heart often requires attention. The agencies suggested are of doubtful permanent benefit and until the etiologic factors causing this distressing pathologic condition, with the accompanying neurosis and psychic disturbances so markedly illustrated in most cases are discovered, we are working more or less in the dark. It is a satisfaction to know, however, that one positive cure has been brought about by the use of thyroid extract.⁵ In all, about 50 cases have been reported.

NOTE. (Sept. 21, 1910).—Patient 1 has lost weight (19 pounds in four months) is less nervous, and in a better general state of health than formerly. The "lumps" have not decreased in size, but are not so sensitive as before thyroid extract treatment was instituted.

Patient 2 shows no improvement after four months' treatment, except that lavage, diet, etc., have bettered the gastric distress. She has gained in weight. The "lumps" are as sensitive or painful as before treatment began.

ANAPHYLACTIA

A PHENOMENON CAUSED BY THE PROTEINS OF TOMATOES, CRABS, BERRIES, BIVALVES, EGGS AND OTHER FOODS. A PRELIMINARY NOTE

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Without discussing, in this brief paper, the so-called "serum-disease" of von Pirquet, and other phenomena of anaphylaxis described elsewhere, such as the anaphylactic attacks in hay-fever, after tuberculin and the like, I wish to make this preliminary report with regard to another anaphylactic disease.

When some foreign protein is first injected into, or invades, man or other animal, it makes him susceptible to a subsequent injection of the same substance. There is no outward or tangible manifestation of this first injection, but the sensitizing effect is distinctly noticeable when the injection is repeated.

This second injection may show itself as a violent shock, or in the form of respiratory disturbances, dyspnea, edema, tonic muscular spasms, joint effusions, glandular swellings, albuminuria, hyperemias, or urticarial skin eruptions. Any one of these signs, or many of them, may be observed after the second dose of protein.

The causes of the various urticarial diseases are usually classified as predisposing, external, and internal. The predisposing causes have been called "susceptibility," "indigestion," "infancy," "rickets," "jaundice," etc.

Nettles, jelly-fish, mosquitoes, wasps, caterpillars and "bugs" are among the external causes.

Internal causes are foods such as mussels, crabs, lobsters, berries, worms, mushrooms, oatmeal, tomatoes, pork, or even egg-white.

The curative treatment is to remove the offending dietetic irritant.

Now, it is my assumption that certain individuals are sensitized to tomatoes, grapes, berries, or other specific protein, and that the absorption of their particular protein from the food brings on an attack. Since in

4. For a comprehensive review and detailed description of symptoms, see Frankenheimer, J. B.: Adiposis Dolorosa, THE JOURNAL A. M. A., March 28, 1908, p. 1012.

5. Price (Am. Jour. Med. Sc., May, 1909) cites the report of Dercum on this point.

certain cases in which antitoxic horse-serum is repeated in a second dose all of these urticarial eruptions, even angioneurotic edema, have been at various times reported, there is every reason to believe that these rashes are signs of anaphylaxis.

One individual may pass through different degrees of prophylaxis (immunity) alternately with states of anaphylaxis. Thus a tomato may at one time cause no symptoms, at another time in the same individual, erythema multiforme; again angioneurotic edema.

Accordingly, those persons subject to urticarial eruptions from a definite food may be regarded as sensitized to that protein. If the proteins absorbed from the digestive tube inaugurate an attack, they are in a state of anaphylaxis.

These phenomena of hypersusceptibility to food proteins may be congenital, acquired or inherited.

The recognition of the offending protein, whether its invasion is by mouth or by injection, whether it is by the olfactory route or by the circulation direct, is of such clinical importance that internists dare no longer ignore the applications of our present knowledge of anaphylaxis.

There is another example of the clinical application of this anaphylactic reaction which I must mention before concluding this paper. It has never been recognized before. In all of the dermatologic clinics of seacoast or river towns there is seen, in the crabbing season an erythematous, progressive cellulitis of the hands, due to abrasions from the shells of crabs, lobsters and other shell fish. Hundreds of persons are scratched, injured and "bitten" by crabs, yet only about one-tenth of one per cent. of those bitten show this erysipeloid eruption. It spreads from the point of the finger or hand scratched, steadily, just like its more dangerous analogue, erysipelas.

Dr. T. Caspar Gilchrist studied a number of these cases bacteriologically and found them sterile. There was no associated micro-organism. "Crab-hand" has been a mystery, as far as its immediate etiology is concerned.

When we realize that such a small number of those exposed to this shell reaction really exhibit it, and when all of the other factors associated are taken into consideration, I believe it will be agreed that the condition fits in exactly with what we should expect from those persons who are supersensitive to shell proteins. Two experiments that I had the opportunity of performing this summer go far to verify this. They, with others, will be published in another paper.

It is always a specific condition. Persons subject to anaphylactic shock from crabs are not affected by berries, and *vice versa*.

A further study of this new disease is yet to be completed. We are now isolating the proteins of various dietetic articles and administering them to susceptible persons. The complete results of this work will shortly be published.

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Benefits of Anesthesia.—Without a reliable anesthetic where would our surgeons be? We would hear nothing of the wonderful work they are doing. They would be groping in the dark and performing only the minor work—opening boils and an occasional amputation. But to-day, thanks to a drug that robs the patient both of the sense of pain and consciousness, the surgeon unhesitatingly dares to attack the most vital parts of the body.—W. A. Onderdonk, in *American Practitioner and News*.

THE SURGICAL IMPORTANCE OF ACCESSORY RENAL ARTERIES*

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Under normal conditions each kidney is supplied by a single renal artery which arises from the side of the aorta, a little below the origin of the superior mesenteric. Each renal artery, before reaching the hilum of the kidney which it supplies, divides into from three to five branches, which enter the substance of the kidney independently at the hilum.

The primitive kidney is a segmental organ, and its primitive vessels are probably segmental, *i. e.*, one artery for each segment, so that the persistence of the embryonic condition would mean that each kidney, instead of being supplied by a single renal artery, might receive from two to five renal arteries. Such supernumerary vessels represent a primitive condition, and the accessory arteries may arise close together from the aorta, or their points of origin may be widely separated.

The varieties of accessory arteries which most frequently occur are:

TYPE 1 (Fig. 1).—Two separate renal arteries arise from the side of the aorta to supply the kidney. The two arteries enter

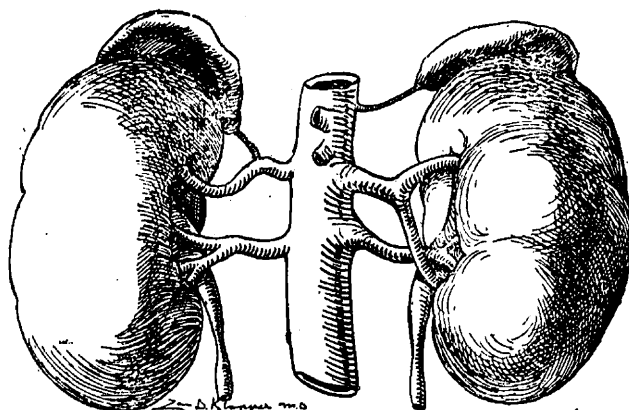


Fig. 1.—Type 1 of accessory arteries. Two separate renal arteries passing to hilum from aorta.

the hilum of the kidney, dividing, just before doing so, into two or more branches. This variety may be called the *two-artery type*.

TYPE 2 (Fig. 2).—A main renal artery arises from the aorta in the normal manner, but a second, *i. e.*, accessory, artery arises from the aorta a variable distance away, passing directly from the aorta to the upper pole of the kidney. This may be called the *superior polar type*.

TYPE 3 (Fig. 3).—The main renal artery arises from the side of the aorta and passes to the hilum in the normal manner.

An accessory renal artery arising separately from the aorta a variable distance from the main trunk passes to the lower pole of the kidney. This is called the *inferior polar type*.

TYPE 4 (Fig. 4).—Three renal arteries arise from the side of the aorta and pass separately to the hilum of the kidney. This is called the *three-artery type*.

TYPE 5.—Four renal arteries arise from the aorta and pass separately to the hilum. This is called the *four-artery type*.

TYPE 6 (Fig. 5).—The accessory artery, instead of having its origin from the aorta, close to the main renal trunk, arises from a vessel at times quite distant from the normal renal artery, most often from the common, external or internal iliacs, rarely from the hepatic, middle sacral, spermatics, in-

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