pearance, because of pressure (upon the trachea, vessels or nerves), because they are intrathoracic, or may become so. I wish here to call attention to the fact that a very large intrathoracic cyst or adenoma may be present while there appears but a slight enlargement in the region of the thyroid gland, represented by the top of the cyst as it appears above the clavicle or sternal notch. This is the type of case which is often overlooked by the physician, or told that his goiter is not of sufficient size to be of importance. I wish to further call attention to the fact that these intrathoracic goiters may exist with but occasional interferences with respiration or circulation.

In the past year I have had one case in which there was a visible goiter of but very moderate dimensions. The patient had had but one attack of suffocation coming on while alone at a hotel. He recovered from this without treatment, and was later sent to me by his family physician for operation. Before the operation could be undertaken, he became cyanotic and unconscious, so that I operated upon him without anesthesia (while he was unconscious). A large cyst, whose lower pole rested upon the arch of the aorta, was evacuated, the pressure relieved, and the man returned to consciousness. The sac was then removed and recovery resulted. I cite this case as one of several intrathoracic goiters to indicate how serious may be the consequences of too lightly passing over what seem to be small localized enlargements of the thyroid gland.

Adenomata of the thyroid may be single or multiple, and, like cysts, should be submitted to surgical operation for the same reasons—(unsightly appearance, pressure, and intrathoracic location)—with the added danger that they may at any time become malignant.

In the case of cysts and adenomata, it should be remembered that symptoms of hyperthyroidism as a result of pressure from the cyst or adenoma may arise at any time and operation then be indicated.

Carcinoma and sarcoma of the thyroid gland, to be benefited to any extent by surgical measures, more than in almost any other part of the body, must be submitted to early surgical treatment, and then even under the most favorable conditions the prospect of early recurrence is great. This constitutes an argument in itself which should lead us to investigate and remove all suspicious localized swellings of the thyroid gland.

To sum up, the indications for operation upon the thyroid are as follows:

1. For hyperthyroidism (exophthalmic goiter).
2. For pressure (either extra or intrathoracic).
3. For removal of unsightly enlargements.
4. For malignancy or possible malignancy.

THE TREATMENT OF PSORIASIS WITH HORSE SERUM.

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THAT psoriasis is a disease often most rebellious to treatment is a fact well known to every practitioner, be he a specialist or not; therefore any remedy which holds out the hope of alleviation or cure is gladly received. Within the last year or two, various attempts have been made to get the better of the disease by intravenous injection of the patient's own serum. No clear or cogent reasons are given for this procedure, its employment being entirely empirical, also there seems as yet to be no consensus of opinion as to its efficacy. Gottheil, a worker in this field, asserts "that blood serum, whether autogenous or foreign, undergoes important changes after it has been withdrawn from the body. The administration apparently diminishes the sensitiveness of the skin so that there is less tendency to persistence and spread of the local symptoms and ordinary medication is more effective and can be pushed without exciting reflective inflammatory phenomena."

Horse serum is essentially of the same composition as human serum, has been administered for years subcutaneously, being the medium for the antitoxin of diphtheria, and used as well as rabbit serum in the treatment of hemophilia. It therefore seemed to be worth while to try it in cases of psoriasis, and quite probable that it would act similarly to autogenous serum. Autogenous serum is prepared by withdrawing 75 to 100 c.c. of blood from one of the patient's veins, placing it in an electric centrifuge for 30 minutes or so, decanting the serum and injecting 30 c.c. into a vein. The whole process naturally must be conducted with great care as to asepsis. This presupposes laboratory conveniences, which are not always at hand, and the operation in any event takes considerable time. With this in mind, we have during the past summer, experimented with normal horse serum in cases of psoriasis. The term normal is used here advisedly, the serum being obtained from the blood of normal horses as distinguished from that from horses undergoing the process of immunization for the production of curative serum. The serum is furnished in aseptic glass syringes ready for use. It is not always clear as seen through the glass, but a competent serologist assured us that this was probably due to red blood cells and would make no difference in the reaction. This fact has also been remarked by clinicians. Accordingly, six cases of psoriasis in which the disease was well marked were given horse serum at weekly intervals during six weeks, all other treatment being omitted that its effect might be estimated.

At first the serum was given intravenously, but after two cases of anaphylaxis had occurred, one of which was most startling, the remainder was administered subcutaneously.

The patient who developed serious symptoms of anaphylaxis was a man of 35, of good physical appearance and habits, who had one intravenous injection without trouble. The second injection was followed by considerable pain in the arm, necessitating a visit from a physician in the evening after returning home. One week later, having received the third injection at the hands of an unusually intelligent house officer, he suddenly turned black in the face, his breathing became rapid and stertorous with a rapid and feeble pulse. A second case, a woman, developed similar symptoms, though in much less degree.

These occurrences led us to omit the serum altogether in the anaphylactics and to adopt the subcutaneous route in the others. The results in this series were inappreciable to ourselves, though the patients were unanimous in their claim that the psoriasis was less marked and loyally attended the clinics.

Two private cases, one of which received the serum while taking a course of Liq. Potass. Arsenitis, while the other was given Ung. Acid Salicylici, improved greatly, the first result being the almost total disappearance of the psoriasis, and while the other is still under treatment, the patches have disappeared entirely, leaving only a faint stain. Among other cases receiving the serum was a woman of 40, who had been suffering from pemphigus for at least six months. She had been treated in two hospitals as well as privately, without result. She was given an injection of horse serum once a week subcutaneously, as it was impossible to enter a vein. Although she was in a feeble condition, no untoward results occurred. In fact, though before the administration of the serum the characteristic bullae of the disease were of frequent occurrence, every portion of her body having been attacked, even the mouth and vagina; since the injections none have been seen now for some six weeks. This experience with horse serum though not large, tends to show that the results of its trial accord with those obtained by others with autogenous serum, viz.: that serum, either autogenous or exogenous, is of little value in psoriasis when given alone, but that when combined with local or internal treatment, it for some unknown reason exercises a favorable influence on the disease. An advantage which the use of horse serum has over the autogenous product is that the patient is saved the operation of withdrawal of his blood and the administrator the time and trouble of the preparation of the serum, since horse serum can be obtained ready for immediate injection. It would seem that this remedy should be extensively tried out.

(Since preparing this report, another case of psoriasis of several years' standing, treated with six subcutaneous injections at weekly intervals, has been apparently cured, the eruption having entirely disappeared.)

PHYSIOLOGICAL CONSIDERATIONS IN THE DIFFERENTIAL DIAGNOSIS OF NEURASTHENIC, HYSTERICAL, AND PSYCHOTIC SYMPTOMS.*†

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THE autonomic, or vegetative nervous system, innervates the glands and the smooth muscles of the viscera, which, as far as is now known, are never innervated directly from the central nervous system. Under the control of the autonomic system are to be found the tear gland, the dilator of the pupil, the muscles regulating the arteries of the salivary glands, hair, surface arteries, sweat glands, heart, liver, stomach, spleen, intestine, adrenal glands, colon, bladder, rectum, and the arteries of the external genitals.

Dejerine and Gauckler, in their book upon the psychoneuroses, have chapters dealing with the following subjects: The Functional Manifestations of the Digestive System; The Functional Manifestations of the Urinary Organs; The Functional Manifestations of a Genital Nature; The Functional Manifestations of the Respiratory Apparatus; The Functional Manifestations of the Cardio Vascular Apparatus; Cutaneous Functional Symptoms (Vasomotor, Secretory, and Trophic); Functional Symptoms in the Neuro Muscular Apparatus; Disturbances of Sensibility; Functional Manifestations of the Sense Organs; Nervous and Psychic Manifestations (sleep, headache, etc.)

Janet, in his book, "The Major Symptoms of Hysteria" considers in various chapters, Somnambulisms, Double Personalities, Convulsive Attacks, Motor Agitations, Contractures, Paralysis, the Troubles of Vision, the Troubles of Speech, the Troubles of Alimentation, (Anorexia, Paralysis of Lips, Tongue, Pharynx, Oesophagus, and Abdomen) Ticks of Respiration and Alimentation.

A comparison of these two books shows that in the first, wherein neurasthenia is considered for the most part, the symptoms deal almost entirely with the field innervated by the autonomic nervous system, whereas, Janet deals with symptoms which are almost without exception in the field controlled normally by the central nervous system,—symptoms, which, for the most part, are capable of being voluntarily imitated.

The study of the psychoneuroses cannot but be benefited by clarity of distinction between what is meant by neurasthenic symptoms and what is meant by hysteric symptoms. It would seem, accordingly, to be worth while if a sharp differentiation on a physiological basis could be made between these two classes of symptoms, and if cases showing symptoms involving principally the central nervous system could be

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