

The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. LXIX, No. 11

CHICAGO, ILLINOIS

SEPTEMBER 15, 1917

THE RELATION OF LARYNGOLOGY, RHINOLOGY AND OTOTOLOGY TO GENERAL MEDICINE *

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As this section is only one unit of a great national body representing every department of medicine, it seems appropriate to spend a short time in reviewing our relation to general medicine.

A glance at the annual programs covering the last five years gives us some conception of the range of our specialty, as we are called on to deal directly with specific problems.

The following lists of special and general diseases, which may originate from some focus, or have their incidence in the nose or throat, bring home to us the importance of laryngology and rhinology to general medicine and the indirect problems which we must meet as consultants. In compiling these lists, I have not presumed to represent the opinion of internists, or workers in other specialties.

Each list, therefore, was submitted to an authority in his respective department and received his endorsement.

I have attempted only to arrange in some sequence what is already known, and also to emphasize the fact that we are being drawn into more intimate relations with internal medicine rather than away from it.

One cannot be a good specialist without having his outlook on general medicine broadened. His special study becomes the objective point to which he brings all correlated facts and differentiates them.

OPHTHALMOLOGY

The diseases of the eye arising from foci in the nasopharynx have been added to each year, until now the etiology of the following list is conceded. For example:

Retrobulbar neuritis from infection in the ethmoids and sphenoids.

Acute edema of the lids and congestion of the conjunctiva from the ethmoids.

Pain and photophobia from acute congestion in the anterior ethmoid region.

Iritis from a focus in the tonsils, teeth or sinuses.

Blocking and infection of the tear duct from obstructions of the nasal end of the duct.

Orbital cellulitis from the ethmoids.

*Chairman's address, read before the Section on Laryngology, Otology and Rhinology at the Sixty-Eighth Annual Session of the American Medical Association, New York, June, 1917.

Optic atrophy from the pressure of tumors in the ethmoid region.

Ocular displacement and diplopia from pressure in the ethmoid region, and the supposed connection of phlyctenular keratitis to infected tonsils and adenoids.

SKIN

We may have the following skin lesions which may be primary in the nose or throat, or arise from some focus:

Impetigo from septic discharges from the nose or ear.

Erysipelas from erosions, or discharge from the nose or ear.

Lupus, extension from the nose.

Lepra from the nose.

New growths from the throat, nose or ear.

Angioneurotic edema.

Lymphangioma, extension from the tongue or cheeks.

Syphilis may be primary in the nose, throat or ear.

Tuberculosis may be primary in the nose or throat.

Scrofuloderma secondary to tonsillar infection.

Noma, primary in the nose.

Scarlet fever, incidence in the throat.

Measles, incidence in the throat.

Erythema from infection of the nose or ear.

Urticaria from septic discharges.

Cellulitis from septic discharges from the nose or ear.

Lichen planus in the throat as a neurotic manifestation.

Leukoplakia, primary in the soft palate.

Keratoses, primary in tonsils, pharynx and base of tongue.

Pemphigus, primary in palate, pharynx, tonsils and buccal surfaces.

Actinomycosis, primary in pharynx and tonsils.

Glanders, secondary in the nose.

ORTHOPEDICS

In the department of orthopedics, we have the arthritides, acute, subacute and chronic, in which the nasopharynx is supposed to share the honors with the gastro-intestinal tract, as an etiologic factor. It is still an open question, however, whether the gastro-intestinal disorder may not itself be secondary to a focus in the nasopharynx.

DISEASES OF CHILDREN

Nasopharyngeal conditions in children may be manifest as:

Syphilis, primary in the nose, throat or ear.

Tuberculosis, primary in the nose or throat.

New growths, primary in the nose, throat or ear, especially epidermoid cancer and lymphosarcoma.

Measles, incidence in the throat.

Scarlet fever, incidence in the throat. (Dr. Place calls attention to the fact that in those cases in which one tonsil has been removed and the other not, on the operated side the evidence of scarlet fever is almost nil. The course of the disease seems to be milder. Dr. Place also thinks that pigeon and funnel shaped chests in children are due to nasal obstruction, and that rickets play a secondary rôle.)

Vincent's angina, primary in the tonsils.

Streptothrix, primary in the tonsils.

Rheumatism, from focus in nose, throat or teeth.
 Endocarditis, from focus in nose, throat or teeth.
 Nephritis, from focus in nose, throat or teeth.
 Arthritis, from focus in nose, throat or teeth.
 Bronchitis, secondary to adenoid or tonsil infection.
 Pneumonia, secondary to adenoid or tonsil infection.
 Abscess, retropharyngeal or peritonsillar.
 Mycosis, primary in tonsils and pharynx.
 Herpes, primary in the fauces and pharynx.

DUCTLESS GLANDS

The relation of focal infections in the nasopharynx to diseases of the ductless glands remains unsolved.

Beebe remarks that there is no complicating factor in goiter, which is more troublesome or more dangerous to the patient than tonsil infections to which they are subject. This observation is significant, as repeated tonsillar infections at more or less regular intervals are usually exacerbations of a chronic focus and not fresh infections.

That thyroid conditions are made worse by toxemia originating in the nose or throat is conceded. What rôle such infections play in the etiology of goitrous conditions is a problem particularly for those of our fellows living where ductless gland disease is endemic.

GENERAL MEDICINE

Infection as a cause of general diseases is as old as the history of medicine. That such infection has its origin at the beginning of the respiratory tract as a chronic focus with acute exacerbations is recognized by clinicians in an increasingly large number of general diseases.

In 1894 many writers, including Pasteur, Frankel, Martin, Selmi and Bouchard, pointed out the danger to individuals from autointoxication caused by ptomains, which were formed by the action of bacteria on organic matter and distinguished between the toxic and the nontoxic. The one invariable circumstance, however, surrounding the development of ptomains was the part played by bacteria.

It is common knowledge that under normal conditions streptococci, staphylococci, *Micrococcus catarrhalis*, pneumococci, diphtheria, and pseudodiphtheria bacilli, meningococci, tubercle bacilli and many other pathogenic bacteria are to be found in the nasopharynx. Many of these we associate with the most dangerous clinical symptoms. But it is also known that the same organisms may be nonpathogenic until conditions arise that increase their virulence. No one believes that such organisms are swallowed, or enter the lymph or blood currents nonvirulent, pass Nature's protective secretions and then from the lowered resistance of the host, or any other cause, become manifest as an active arthritis, endocarditis, nephritis, or other pathologic condition.

On the other hand, we know that in the nasopharynx and teeth we may have all the conditions present to cause a toxemia, septicemia or pyemia with acute, subacute or chronic manifestations in distant organs, that is, specific organisms in patients at an age when the resistance is often lowered, organs undergoing involution, disintegrating organic matter, temperature, moisture, etc., which means that we may have virulent chronic foci, as well as acute local infections.

These facts were called to the attention of the medical profession by Arkovy of Budapest during the period from 1878 to 1898, and were substantiated by the painstaking microscopic findings of Miller of Ber-

lin from 1884 to 1894, and by the clinical experience of William Hunter of London, who published his results in the *Practitioner* in 1900. Recently these findings have been emphasized by Billings, Rosenow, Davis, Mayo and others.

Miller of Berlin, who was educated as a physician and also as a dentist, showed bacteriologically that focal processes in the teeth, tonsils or sinuses kept up a low grade infection of the adjacent tissues, and during exacerbations this might extend by continuity, or directly by way of the lymphatics or blood stream to neighboring or remote organs. Haskins since 1894 has repeatedly called attention to toxemia and septic conditions starting in the alveolar process.

It is known to laryngologists that a large number of people carry for years a constant streptococcus focus in one or all of these localities, and that so-called repeated infections are only exacerbations of a chronic process, as evidenced by the fact that so-called colds start in the following way:

For years, a patient will be subject to sore throat, and then the infection goes up or down, or as a cold in the head, which then goes down; but the clinical symptoms seldom alternate, showing that the focal processes have a period of quiescence and are then subject to acute exacerbations.

Certain clinical manifestations of a general character are recognized, as resulting from such foci, arthritis, myositis, endocarditis and nephritis being the more common, with acute or chronic symptoms. In addition, many clinicians include pneumonia, bronchitis, secondary anemias, duodenal and gastric ulcers, cholecystitis, appendicitis and chorea. The clinical manifestations are often worse coincidentally with an exacerbation of the focal process.

The relation between this focal process and the syndrome is often overlooked because of the stormy character of the exacerbations. It is not safe to trust to the history of the patient. Many patients have only a slight pharyngeal irritation, particularly in the morning, which they ascribe to smoking, indigestion, etc. The onset of the exacerbation to them is a fresh attack of their malady. More than this, if there is an enclosed abscess in connection with the teeth or tonsils, it may discharge directly into the lymphatics. It is necessary, then, for the clinician on recognizing symptoms of toxemia to remember that there may not be much local evidence to confirm his diagnosis.

The number of diseases whose etiology may depend on some focus in the nasopharynx is sufficiently formidable to show (1), the service which our speciality can render the internist; (2), our relation to other specialities, and (3) that foci in the nasopharynx and teeth may be manifest only by remote general symptoms; but when such symptoms indicate toxemia, such foci should be suspected.

Rarity of Eclampsia in Germany at Present.—The *Nederlandsch Tijdschrift*, quoting the *Deutsche medizinische Wochenschrift* of recent date, states that since the war began the number of cases of eclampsia in connection with pregnancy has dropped very low. The hospitals call attention to this in their reports. Warnekros accepts it as the result of the lesser consumption of fat and albumin, imposed by war conditions, and urges that all pregnant women from the sixth month onward should be restricted to a vegetarian diet. Grumme protests against this, saying that as only one woman in five hundred, at the utmost, presents eclampsia, it would be like trying to drive out the devil with Beelzebub.