

COUGH DUE TO CAUSES OUTSIDE THE LUNGS.*

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A chronic cough, in addition to the physical suffering it causes, usually gives rise to much mental distress, for it is commonly believed that the lungs are at fault, and consequently the vision of tuberculosis and its results are constantly before the sufferer and his friends. Such cough, however, is often extra-pulmonary in origin and quite innocent in its nature, and a highly commendable service has always been rendered, and the dignity and value of scientific medicine exhibited, when by thorough, skillful and accurate examination the extraneous cause is discovered, dextrously removed and the cough thereby cured. A shadow is then lifted from the lives of the patient and his friends.

It has been said that an irritation in any part of the body has been known to produce a cough. However, the different portions of the upper air tract, from their intimate connection with the vagi and sympathetic nerves, are the most frequent extra-pulmonary seats. A list of the principal reflex causes may be given as follows:

In the ear, impacted cerumen, foreign body or cholesteatoma.

In the nose, hypertrophies, septal spurs, polypi, foreign bodies and the crusts of atrophic rhinitis.

In the naso-pharynx, adenoids, polypi or other growths.

In the pharynx, elongated uvula, granular pharyngitis, hypertrophy and other diseases of the tonsils.

In the glosso-epiglottic spaces, hypertrophied lingual tonsils, varicose veins or a too greatly curved epiglottis.

In the larynx, presence of mucus or pus, congestions and thickenings of the mucous membranes, papilloma or other growth.

In other parts of the body, pressure or irritation of the vagi are most frequent cause.

A positive knowledge of the causative location of a cough is of the greatest importance. A thorough examination of the lungs should be made, however much the symptoms may point to an extra-pulmonary cause, for then the further examination, if required, would be performed with less prejudice. The absence of any discoverable

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lesion in the lungs, together with the general appearance of the patient, which may be robust, with his family history, which may be good, and with the character of the cough, which may be dry, hacking and spasmodic, will render it sufficiently certain that the cause of the cough is not from the chest, and should therefore be sought for diligently and systematically in the regions most likely to be affected. The patient, himself, may indicate the apparent location of the cough as in the throat or ear, but usually his statements, though honestly given, are misleading, and the above mentioned regions should be searched for foreign bodies, sensitive areas, inflammations and new growths. Skill in the manipulation of reflected light and instruments is of the highest importance. Such simple accessories as a good light, cocaine and a probe, in trained hands, will be sufficient to detect many of the conditions in the nose or ear capable of producing reflex cough. By means of the rhinoscopic mirror conditions of the nasopharynx can be made out in adults and sometimes in children; but, if necessary, the finger may be passed into this space and its condition ascertained. The open mouth, idiotic expression, arched palate and irregular teeth are symptoms, often sufficient in themselves, for the diagnosis of naso-pharyngeal growth. Direct inspection is sufficient to detect tonsillar, uvular and oro-pharyngeal causes of cough: with the tongue gently depressed, if the uvula still hangs in contact with the lingual organ, it should be regarded with suspicion. Greatly enlarged tonsils of any variety may cause cough, but the kind that is most apt to do so is that in which the enlargement is downward, or where there is the so-called lower lobe. In such cases it is difficult to depress the tongue sufficiently to expose the inferior margin of the tonsil, which may extend low enough to occupy the glosso-epiglottic space and impinge upon the epiglottis in such a way as to cause cough by its irritating presence. Tonsillar concretions and adhesions of the gland to the pharyngeal pillars may cause cough. Granular pharyngitis is sometimes a cause. These so-called granulations are really closed lymph follicles and probably cause the cough by the pressure they produce. Cough produced by reflexes from the glosso-epiglottic spaces is probably more frequent than from any other extrapulmonary source, and an examination of this region for enlarged lingual tonsils, varicose veins or other growth, should never be neglected in a suspected case of cough not due to lung lesion. As the author pointed out in a paper before the Western Ophthalmological, Otological and Rhinological Association, the shape of the epiglottis may have to do with the production of a cough, for where it is too greatly curved forward, its crest projects against the base of the

tongue, and the necessary motions of the two organs against each other may cause very active reflexes in the form of cough and clearing the throat, even when there is no other abnormal condition present. Pus from an accessory nasal sinus, or mucus from the naso-pharynx dropping into the larynx, will set up a cough. In such cases the patient, by much clearing and hawking, will keep the larynx rather free during the day, but at night the fluids may find their way into the stomach in such quantity as to produce nausea or vomiting in the morning, or into the larynx, giving rise to morning fits of coughing and expectoration of the material, which the patient naturally supposes comes from his lungs. A foreign body, papilloma, ulcer or inflammatory thickening of the mucous membrane of the larynx may give rise to the most violent paroxysms of coughing, which may occur frequently, and recur indefinitely, or so long as the cause be not removed. These conditions may all be positively determined by the history of the case and the use of the laryngeal mirror.

Failing to find an adequate cause for a cough of suspected extrapulmonary origin in the ear or upper air tract, examination of the vessels and nerves of the neck should be made with a view of locating tumors or aneurisms, which might produce the symptom by pressure upon the vagi or its connections.

As better illustrating the subject, a few cases are appended from the author's records:

Case I. Miss M. F., Cumberland, Ind., atrophic rhinitis. Referred by Dr. Harvey. Coughed very much from irritation of the crusts which blocked the nose and naso-pharynx. The slightest touch of atomized fluids, probe or forceps to the interior of the nose, for the purpose of removing the crusts, would be followed by the most terrific paroxysms of coughing and sneezing, requiring anæsthesia by cocaine before the nostrils could be properly cleansed. Keeping the nostrils cleaned of the crusts daily, with proper applications to the sensitive areas, relieved the cough in two months.

Case II. Ross S., Somerset, Pa., had coughed very much for a year, taking regular medicine the while. Cough was disturbing at night, with paroxysms in the mornings. Examination of lungs gave no evidence of disease there. A septal spur occluded the left nostril, the pharyngeal tonsil was much hypertrophied, the faucial tonsils were enlarged, chronically inflamed and adherent to the pharyngeal pillars, and lymphoid masses filled the glosso-epiglottic spaces. Pressure with a probe in any of these locations would excite a cough. All the above named pathological conditions were removed within a period of three months, beginning by removing the spur with an elec-

tric trephine; the adenoid two weeks later with forceps; the faucial tonsils with tonsillotome, after first dissecting them from the pillars, and lastly, the lingual tonsil by galvano-ignipuncture. The cure was complete, both the patient and his friends reporting progress of the improvement, according to the amount of work done. This case is interesting in that it shows the extensive area from which the reflex may take its origin.

Case III. Contrasts strongly, in that it exhibits a persistent, aggravated cough from the most trivial condition and remarkably small area of irritation. M. S., Irvington, Ind., a man, aged thirty-five, weight 185 pounds, tall, muscular and robust, stated that he had had a cough many months, which had grown worse gradually; that his wife had died of tuberculosis and that he feared he had contracted the disease from her. Said he was very anxious to know his exact condition, for he was wanting to engage extensively in a new enterprise, but if threatened with consumption he desired to change climate at once. He was very despondent. Absolutely no lung lesion could be detected. A mild chronic rhinitis existed, which appeared to have no causative relation to the cough. There was no naso-pharyngeal or pharyngeal disease of any kind. The glosso-epiglottic spaces were free from lingual tonsil or enlarged veins, but at a point opposite the crest of the epiglottis, on the base of the tongue, there were three little tumors, each as large as a grain of wheat, and having a delicate, slender pedicle large enough to allow such freedom of motion as to permit them at one instant to lodge at the bottom of the space, and at another to be whipped by the air current of the coughing movements over the crest of the epiglottis, and thus by their irritating presence cause the trouble of which the patient complained. They were easily snared away, to the complete relief of the patient. They proved to be papilloma.

Case IV. Edith E., Indianapolis, aged six, was a delicate-looking child and had coughed since infancy, requiring the attention of a physician very often. The parents believed her to be tubercular and had given many bottles of cod liver oil emulsion, with no improvement. She was referred to Dr. Lambert for an examination of the lungs, but he finding no pulmonary trouble, and believing the disease to be in the upper air tract, referred her to the author. Sitting upright she breathed with great difficulty; none through the nose, and very noisily and laboriously through the mouth. The faucial tonsils were large enough to be in contact with the slightest pharyngeal movement, and the uvula was pinched and rolled between the upper part of the inner surfaces of the glands. They were not inflamed,

neither had she ever had an attack of tonsillitis. Respiration was a constant struggle at night. It seemed clear that the cough was due to the irritation of the enlarged tonsils, and the general ill-health and lack of development to the imperfect respiration and the struggle to perform even that. My custom is to remove both tonsils and adenoids at one sitting, but in this case the delicate state of health contra-indicated the procedure, so the faucial tonsils were first removed, and after a month the adenoids. The first procedure practically stopped the cough, the second did so completely.

Case V. Mrs. C., aged forty-four, of Indianapolis, a woman of very delicate appearance, coughed much and complained of frequent sore throat. No evidence of a cause for these complaints could be found anywhere except in the glosso-epiglottic space, where the veins were varicose and large enough to touch the epiglottis. She was given tonics, and the largest varicose bunches were punctured, one at a sitting, at intervals of a week, with an electro-cautery knife. She reported, six months after the last treatment, that the cough no longer troubled her.

Such examples might be multiplied, but it is unnecessary.

The successful treatment depends entirely upon the proper recognition of the cause and the ability to remove it. The relief in some cases can be brought about by the most trivial surgical measures, while in others a long course of treatment will be required, and the greatest skill and experience will be needed. A certain per cent. of cases are neurotic and will, in addition to other means, require such remedies as iron, nux vomica and zinc phosphide. When hyperaesthesia persists in the nose or throat after its cause has been removed, in addition to local applications, bromides alone, or combined with camphor and valerian, will be of service. To give an opiate in such cases is usually at the risk of forming a habit. Lozenges of lactucarium have been of service where the trouble is in the pharynx or larynx.

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