

movable glands in the neck seemed also to exclude it. Lymphadenoma was also excluded by the condition of the other glands, the spleen, etc. The wooden hardness of the tonsil, the abrupt onset of the symptoms, the condition of the glands in the neck, one being large and the rest all hard and small, suggested hard chancre of the tonsil, the primary ulcer having disappeared. This diagnosis was confirmed by the appearance of a roseolous eruption on the chest, and by the results of anti-syphilitic treatment. The infection had probably been conveyed from a syphilitic infant, by means of the teat of its feeding-bottle, which the patient had one day taken in her mouth to soften.

Arthur J. Hutchison.

Surmont.—*True and False Aphthæ.* "L'Echo Méd. du Nord," November 4, 1900.

The term "aphthæ" used to be loosely applied to any condition of excoriation, or ulceration, or of false membrane in the mouth; in more recent literature the term is applied to vesiculo-ulcerative conditions of the mouth. The author wishes to still further restrict the use of the word. He divides the vesiculo-ulcerative diseases of the mouth into (1) herpetic stomatitis, (2) recurrent herpes of the mouth, (3) zona of the mouth, (4) true aphthæ. The essential anatomical lesion common to these conditions consists of a more or less inflamed basis on which vesicles, discrete or confluent and varying in size, appear. The vesicles rupture and give rise to more or less superficial excoriations or ulcerations. In a long paper the author discusses the etiology, clinical course, pathology, treatment, etc., of each of these.

True "aphthæ" is an infectious disease acquired generally from diseased cows. In these animals the disease frequently affects the udders and teats; the milk is infected in the process of milking, either directly from the diseased teats or else from the hands of the milker. Supervision of the cows and their milkers' hands, or else boiling all milk, should therefore go a long way towards stamping out this disease. Other animals, *e.g.*, swine and sheep, are liable to the disease, but are not likely to transmit it to any extent to human beings.

Arthur J. Hutchison.

NOSE, Etc.

Broeckaert.—*Opacities in the Vitreous Body and Detachment of the Retina, following Ethmoido-frontal Sinusitis.* "Revue Hebdom. de Laryng., d'Otol., et de Rhinol.," January 5, 1901.

A lady, sixty-two years old, consulted the author for marked diminution of vision in the left eye, which came on suddenly. Externally, the eye was normal, but numerous floating opacities were found in the vitreous body. The patient complained of vague pains in the head. General health was good. Treatment with absolute rest, iodides internally and mercurial inunction had no effect, but the loss of vision became steadily more pronounced. On further examination it was found that the left nostril was partly blocked by polypous growths, bathed in pus. Empyema of the left frontal sinus and ethmoidal cells was diagnosed. After partial treatment of this the opacities in the vitreous body diminished to such an extent as to permit of an examination of the fundus oculi. A detachment of the lower half of the

retina was discovered. A radical operation was then performed on the frontal sinus and ethmoidal cells, resulting in a complete cure. Thereafter the vitreous body cleared up completely, and the detachment of the retina remained stationary.

From the history of the case, and from the absence of any other cause for the eye condition, the author concludes that the latter was due to the nasal sinusitis. There was, however, no purulent collection at the back of the orbit, nor any orbital inflammation extending along the perivascular connective tissue to the interior of the eye, therefore the author is inclined to believe that the eye lesions were the results of metastases, though he admits that this theory is not very satisfactory.

Arthur J. Hutchison.

Champeaux, De.—*On the Adenoid Face.* "Archives Internationales de Laryng.," etc., March-April, 1901.

The author remarks that the adenoid face is so well known that stress has been laid upon this type of physiognomy as a characteristic aspect of the disease. He briefly describes the classical adenoid type, which naturally does not always exist in all its purity, and is more or less pronounced, according to the individual. But persons may be the subject of adenoids without possessing the adenoid face, and, similarly, individuals may have the adenoid face without any hypertrophy of the pharyngeal tonsil. Champeaux therefore divides his cases into three groups:

1. Adenoid faces with adenoids.
2. Adenoid faces without adenoids.
3. Adenoids without adenoid faces.

1. In the first group the consequences of the disease show themselves sooner or later; the voice is nasal, the child hears badly, he has ear, nose, laryngeal, and bronchial symptoms, tends to catch cold on the slightest provocation; often has enlarged tonsils superadded. In these cases there can be no doubt of the diagnosis, which the finger introduced behind the soft palate confirms.

2. In the second group the mouth is open, the palatal arch pointed, the teeth badly arranged; the patient snores at night; generally the tonsils are not enlarged; respiration is buccal, and cannot be carried on through the nose. In these patients ear affections readily yield to treatment, and the finger in the post-nasal space finds no adenoids.

3. In the third group the mouth is usually closed, and the patient snores but little; ear symptoms are not common, and hearing is generally fair; but in place thereof laryngo-bronchial symptoms predominate; there is continual cough, especially in the morning; laryngitis and attacks of aphonia or hoarseness are frequent; on depressing the tongue more or less granular-looking masses can be seen on the pharyngeal wall. The finger in the post-nasal space finds adenoids very fairly developed on the posterior wall of the nasopharynx, but the choanæ are free. Sometimes there are nasal symptoms (attacks of sneezing, coryza), but they are intermittent when compared with the laryngo-bronchial attacks, and in no case do they reach the same intensity as do the nasal symptoms in the first and second groups. These patients have enlarged tonsils less often than do those in the first class.

Champeaux discusses the reasons for this condition of things; he remarks that it is admitted that the adenoid type results from a failure in equal development between the upper and lower parts of the face,

and that this explains the presence of the adenoid face in those who have no adenoids. This atrophy of an organ which is not used (the nasal fossæ) perfectly explains the adenoid face in adenoid patients; but how can the absence of the facial type be explained in cases of adenoids?

Champeaux then points out that the existence of the "adenoid face" depends upon whether the adenoids cause nasal obstruction or not; such a type of face may accompany any other form of nasal obstruction, such as hypertrophic rhinitis, deviated septum, or large spurs, and he suggests that the term "adenoid face" be replaced by that of "face of the type of nasal obstruction," or, more simply, "nasal face." This would explain his third group, in which the adenoids do not cause true obstruction to nasal breathing. To further explain this third group he appends to his paper two cuts showing diagrammatically how adenoids may occur with and without obstruction to nasal respiration. Cases are also quoted to bear out his contention.

Macleod Yearsley.

Coates, George.—*On the Causation and Treatment of Profuse Epistaxis in People beyond Middle Age.* "The Lancet," April 20, 1901.

The author had a series of five cases of profuse epistaxis not caused by a blow or injury, but coming on without any apparent cause in adults aged fifty years and upwards, all of whom he had known and watched for several years both before and after the attack, and in whom he had been able to trace the series of events which caused and followed it. The attacks have been sudden in their onset, and profuse, generally lasting from half an hour to an hour or more, and tending to recur for several days. The cases are briefly as follows:

Case 1.—The patient was a gouty man. He had had a severe attack of epistaxis seventeen years ago, which was finally stopped by plugging the posterior nares in the usual manner. At the same time he developed cardiac disease, *i.e.*, well-marked mitral regurgitation. He died fifteen years later, aged eighty-two years, from bronchitis and pneumonia. There was some chronic nephritis.

Case 2.—The patient was a woman aged fifty-two years. She had had profuse epistaxis seven years ago, which also was finally stopped by plugging the posterior nares. She developed mitral regurgitation at the same time. She is now alive and well.

Case 3.—The patient was a man, aged sixty-eight years. He had epistaxis four years ago. He developed aortic regurgitation at the same time. He was treated with blue pill and a mixture of sulphate of quinine and sulphate of magnesia and rest in bed. Plugging was not necessary.

Case 4.—The patient in this case was a woman, aged sixty-four years, who had suffered for at least ten years from high arterial tension.

Case 5.—The patient was a woman, aged sixty-eight years, who had suffered for several years from high arterial tension, due to arterio-capillary fibrosis and from contracted granular kidney.

With the exception of the patient in Case 1, all the others are now alive. In Case 4 and Case 5, the patients did not develop any valvular lesion. The epistaxis in both of these followed exposure to cold when they were very tired; they both had over-exerted themselves for many days, and then got thoroughly chilled. In both, the epistaxis was cured by administering nitro-glycerine and tincture of strophanthus.

In all these cases the sequence of events which led up to the epistaxis was essentially the same, namely :

(a) Long-continued high arterial pressure. (b) Some sudden cardiac failure. In Cases 1, 2, and 3 the epistaxis arose from the giving way of a valve. In Case 4 and Case 5 it arose from loss of power of the cardiac wall. (c) Over-filling of the whole venous system, the weakened heart not being able sufficiently to empty the engorged veins against the high pressure in the arterial system due to contracted arterioles. (d) Leakage from an over-filled vein. In Cases 1, 2, and 3, in which the patients all had a good amount of muscular strength and vigour, the heart had gone on working against this high pressure until a valve, aortic or mitral, gave way. In Case 4 and Case 5 there was not enough vigour of constitution in the patients for the heart to be sufficiently strong to raise the arterial pressure high enough to cause valvular leakage. In them, however, the same state of venous engorgement was produced in the following manner. They had both over-exerted themselves, and felt very tired for some days, then when exposure to cold constricted their superficial vessels such a sudden increase of work was thrown on the heart that the tired muscle was no longer able to do its work efficiently. Here again the veins became over-filled and epistaxis occurred. Both these last cases were caused by the same spell of cold weather, and various remedies as suggested in the various text-books were tried, with little result. When seeing the patient in Case 4 the thought occurred, Why not try to relax the arteries and strengthen the heart so as to get the veins emptied naturally?

The most scientific and satisfactory treatment of these cases of epistaxis, and by analogy of the other forms of passive venous hæmorrhage, is to empty the over-filled veins. As long as they are enormously distended with blood the hæmorrhage must continue, unless direct mechanical means are used, and if one nostril be plugged the epistaxis is apt to start from the other. If, on the contrary, we can relax the walls of the arteries and help the enfeebled heart to do its work, it will soon empty the over-filled veins. But, as a rule, this cannot be done by giving heart tonics at first. The heart has been doing its utmost; it has only failed because it has been overworked, and giving a tonic is like spurring a jaded horse. We must bear in mind that in this class of cases the immediate treatment must be directed to the capillaries and small arteries, as the real cause of the epistaxis lies there, not in the nose. Nitro-glycerine is quite effective; nitrite of amyl might be more so, but one of the more quickly acting nitrites should be used at first; afterwards one of the more slowly acting, as erythrol tetranitrite, or possibly even thyroid tabloids, might do as well. When the capillaries and arterioles are dilated and pervious, then comes the time for strychnine or strophanthus. Of course, each patient must be considered individually, and there are other ways of keeping down excessive blood-pressure and strengthening a weak heart. In spite of everything, plugging may have to be resorted to in some cases, but in most of them the hæmorrhage can be stopped without resorting to this procedure, which is always most uncomfortable to the patient, and sometimes even dangerous.

Finally, by recognising profuse epistaxis as a symptom of a sudden though mostly temporary heart-failure, there is no danger of commencing valvular disease being overlooked and the patient being considered as one who only requires a little surgical treatment. In

some cases it is possible that the alteration in the circulation causing the epistaxis may also cause cerebral symptoms, but here again the cerebral symptoms are mostly not the cause or the result of the epistaxis, but only the result of the circulatory conditions leading to the epistaxis.
StClair Thomson.

Compaired.—*A Case of Persistent and Repeated Nasal Hæmorrhage.*
 "Revue Hebdom. de Laryng., d'Otol., et de Rhinol.," December 8, 1900.

A man, twenty-five years old, had been subject to more or less violent bleeding from the left nasal fossa for five years, the first bleeding having occurred shortly after an attack of typhoid fever. From year to year the hæmorrhages had become more and more frequent and profuse. The patient had been treated for anæmia, hæmophilia, and tuberculosis; finally a malignant tumour of the left nasal fossa had been diagnosed.

When seen by Compaired hæmorrhage had been going on for seven days, which could be controlled only by plugging of the posterior and anterior nares; the patient was extremely weak, anæmic, and anxious. Rhinoscopic examination revealed a varicose condition of the internal branch of the spheno-palatine artery, in the usual position on the septum. Thorough cauterization of this stopped the hæmorrhage completely.
Arthur J. Hutchison.

Jousset.—*The Surgery of the Maxillary Antrum.* "Revue Hebdom. de Laryng., d'Otol., et de Rhinol.," December 15, 1900.

The author had to operate twice on the maxillary antra in one patient. At the first operation he performed the Caldwell-Luc operation, omitting, however, the important step of suturing the wound in the canine fossa, but making the patient wear an obturator in each wound instead. At a later date one of the obturators broke, and a piece fell into one of the antra. A second operation was required to find the broken obturator. On this occasion the author adopted the method described by Rouge. In the author's opinion, the Rouge operation is much more difficult to perform than the Luc operation; the bleeding is much more profuse and more troublesome to stop, the section of the nasal septum is not so easy as one might anticipate, and as a result there may be considerable thickening of the septum and other parts near the entrance of the nose, sufficient to interfere materially with nasal respiration. If only the antra are to be operated on, the Rouge operation does not give any easier access to the parts than does the Luc operation, but, on the other hand, if the sphenoidal or the posterior ethmoidal cells are involved the Rouge operation is to be preferred.
Arthur J. Hutchison.

King.—*Twenty-one Cases of Deflection of the Nasal Septum treated by Asch's Operation.* "Revue Hebdom. de Laryng., d'Otol., et de Rhinol.," January 5, 1901.

A short description of twenty-one cases of deflection of the septum, and of the results obtained by Asch's operation is here given. One case was lost sight of, but in all the others the results were good. In a few a small perforation of the cartilage remained. In young children Asch's scissors may be too large, but may be quite satisfactorily replaced by a sharp-pointed bistoury. Also the smallest size of

Mayer's tubes may be too large. Rolls of gauze may be used instead, but it would be much better to have smaller tubes made. Some time before operating on the deflection any spur or ridge on the cartilage should be removed, and hypertrophy of the turbinated bodies reduced. Perforation of the septum may be the result of careless introduction of the Mayer's tubes, a segment of the cartilage being caught and turned back by the tube. All the author's operations were performed under chloroform. At first he had the patient in Rose's position, with the head hanging over the end of the table; but since adopting the use of suprarenal extract he has found the bleeding so minimal that the danger of blood getting into the larynx has practically ceased to exist. Frequent washing of the nose with a weak alkaline antiseptic lotion, especially during the first twenty-four hours after the operation, should be carried out. The tube in the free cavity may be removed permanently after about twenty-four hours; that on the other side may be left *in situ* three or four days. It should then be taken out and the septum examined. If the parts are in good position, the tube should be carefully re-introduced, left in the nose for another eight or ten days, then permanently removed.

Arthur J. Hutchison.

Lichtwitz (Bordeaux).—*On the Aërothermic Treatment of Certain Nasal Affections.* "Annales des Maladies de l'Oreilles," etc., April, 1901.

The author reviews the various methods of treatment which have been applied to certain nasal maladies, such as spasmodic rhinitis, hay fever, nasal hydrorrhea, acute and subacute coryza, and hypertrophic rhinitis, under the groups surgical (cautery, turbinectomy) and medical (douches, fumigations, powders, ointments, etc.). He then proceeds to describe the treatment with hot air, proposed in the last July number of the *Annales* by Lermoyez and Mahu. This treatment consists in the introduction into the nasal cavities of a current of hot dry air at a temperature of from 70° to 90° (Centigrade, we presume). The necessary apparatus is in three parts: (1) A generator of hot air; (2) an air reservoir; (3) a conducting-tube and cannulæ. The advantages of the apparatus which the author describes are as follows: (1) The easy regulation of the pressure of the air, and thus of its temperature, at the exit of the tube; this regulation is obtained by employing a current of an intensity more or less strong. (2) One is at once the producer and user of the air. (3) The price is insignificant. The author has tried this aërothermic method in divers affections of the nasal fossæ, and he concludes from his experience that it ought to be especially employed in three groups of diseases: (1) The affections which are classified under the term "spasmodic rhinitis"; (2) acute and subacute rhinitis, with implication of the sinuses; (3) hypertrophic rhinitis, with obstruction varying from time to time. He has also employed it in certain other affections, such as lupus, obstinate epistaxis, chronic ulcers of the septum, and certain maxillary sinusites, but not in a sufficient number of cases to justify any decided opinion. Cases are described in support of his recommendation. In all of them the applications of hot air have been for three minutes at a sitting. He considers the treatment valuable, occupying a place between the violent and radical methods of a surgical nature and those medical ones which are too mild. It has also the great advantage of being inoffensive and nearly painless.

Macleod Yearsley.

Ruprecht, Max.—*Far-reaching Effects of Nasal Disease.* "Die Medicinische Woche," No. 33, 1900.

The author points out various constitutional effects more or less directly proceeding from localized diseases of the nose. He divides these diseases into two classes :

1. Narrowing of the nasal passages through hypertrophy, new formations, or deviations of the septum.

2. Diseases of the mucous membrane, with retrograde changes, causing widening of the nasal passages.

Under the first heading, the author describes in detail the results of these conditions on the various organs of the body :

1. *Accessory Cavities.*—Infection may be rapidly spread, causing localized accumulations of pus, which in ethmoidal and frontal sinus disease may be followed by meningitis. Kühnt's record of seventeen fatal cases is quoted, and the author states that many cases are overlooked.

2. *Ear.*—The frequency of secondary infection in pathological states of the naso-pharynx, with possible deafness, mastoid disease, and its dangers, are fully entered into.

3. *The Eye.*—The usual route of secondary infection is by way of the tear-duct (Ziem), but the fact that the lymphatics of the nose and eye meet in the pharynx (Winkler) may explain some cases. Winkler's statement that 40 per cent. of children affected with conjunctivitis and phlyctenular keratitis have naso-pharyngeal disease, and Ziem's opinion that trachoma is often caused by a purulent rhinitis, is quoted.

4. *Pharynx and Lungs.*—Mouth-breathing following nasal obstruction, with all its evil results to throat, lungs, and general development, is fully entered into. Secondary infection by way of the tonsils is supported by Grober's experiment on dogs, which showed the direct lymphatic connection between tonsils, throat glands, and upper part of pleura and lung.

5. *Stomach and Intestines.*—Chronic indigestion may be brought on by swallowing post-nasal discharges, affecting the general nutrition. Hernia occasionally occurs through too severe blowing of the nose.

6. *Nervous System.*—The influence of the sense of smell on the general well-being, and the reflex neuroses, asthma, etc., are mentioned. As an example of the second class, the author gives lupus, tuberculosis, and syphilis. As a type, he takes ozæna, the pathology of which he states is unsatisfactory, and points out that as the necrotic changes go on, there is ultimately a condition analogous to that found in mouth-breathers. The inspired air does not receive its proper supply of moisture or heat; dust and bacteria gain access to the pharynx; the bactericidal power of the nasal mucous membrane being destroyed or interfered with, the secondary infections already mentioned are prone to take place.

Anthony McCall.

Walsham, W. J.—*Note on the Treatment of Collapse of the Ala Nasi.* "The Lancet," March 30, 1901.

Collapse of the ala nasi consists in the falling of the external part of the lower lateral cartilage inwards during inspiration. Normally, the lower lateral cartilage is doubled on itself, U-like, the inner part being in contact with the lower end of the septum, whilst the external forms a part of the outer wall of the vestibule. There is an amount of stiffness in the cartilage which keeps the anterior nares patent and the resiliency of the cartilage where the bend occurs is sufficient, after the

two portions of the cartilage have been pressed together, to restore the patency of the anterior nares. In not a few individuals this resiliency is lost. In some of these cases there co-exists a dislocation of the anterior end of the septum from the columella, and this, when present, increases the obstruction to free inspiration.

This collapse of the ala may easily be overlooked by the surgeon unless he is cognisant that such a condition may occur. For when the speculum is introduced and the blades are separated, the collapsed ala at the same time is, of course, carried away from the septum by the external blade of the speculum, and nothing whatever may be discovered on looking into the nasal cavities to account for the patient's trouble. If, now, the speculum is removed and the vestibule is examined by tilting up the tip of the nose with the finger, it will be seen that the outer wall comes in contact with the inner when the patient inspires.

The condition is an exceedingly troublesome one to treat. The author has seen some good done by face massage—that is, massage of the dilator muscles of the ala—but not much. When there is dislocation of the anterior end of the septum, shaving off the projecting portion will also help matters, though it will not completely rid the patient of his trouble. The various rings, semicircles, celluloid expanders, short pieces of drainage-tube, etc., that have been from time to time recommended for the condition, although they may keep the passage expanded whilst *in situ*, and for the time give relief, soon become irksome and irritable and are abandoned. In one case a number of similar contrivances of various material were carefully moulded and shaped to fit the part accurately. But this patient, like the rest, finally threw them aside and resorted again to his own plan of obtaining relief, namely, rolling up a piece of moist cotton-wool into a ball of the size of a small pea, which he poked up the vestibule into the little pit just within the limen at the angle of bending of the lower lateral cartilage. This tiny ball of cotton-wool was just sufficient to prevent the ala from collapsing, and it gave to the author the clue to the method of curing the condition. It struck the author that, if in place of the cotton-wool ball he could transplant there a ball of the patient's own tissue, he should obtain the same end, and this he succeeded in doing in the following way. A strip of mucous membrane, as thick as possible, and about $\frac{3}{16}$ inch in width, was dissected up from the inner wall of the vestibule, leaving the base attached above. The surface of the little pit at the angle of bending of the lower lateral cartilage was next made raw by removing the epithelial layer. The epithelial lining was also removed from the little strip of tissue; the tissue itself was rolled up bandage-wise, and then secured to the rawed surface of the pit by a stitch of the finest fishing-gut passed by a needle through the septum into the opposite nostril and back again. When thus fixed the little roll of tissue pressed out the external portion of the lateral cartilage just enough to prevent the ala during inspiration from falling into contact with the septum. It cannot be seen, and produces no deformity, and so far as his experience has gone it is a permanent cure for this troublesome condition. The surface left by rolling up the strip of mucous membrane readily granulates over and causes no inconvenience. Tension in the strip of tissue must, of course, be avoided, and care must be taken that the surfaces of the roll are properly and completely bared, and their vascular supply not interfered with by drawing the stitch too tight. The operation is best done under general anæsthesia, as unless

the tissues are manipulated delicately the blood-supply of the little strip will be injured and necrosis will take place. *St. Clair Thomson.*

LARYNX.

Ausset.—*Laryngeal Ulcerations following Intubation.* "L'Echo Méd. du Nord," November 11 and December 9, 1900.

At a meeting of the Société Centrale de Méd. du Départ. du Nord, M. Ausset showed the larynx of a child that had died of diphtheria on the ninth day of the disease. The child was rachitic and had enlarged tonsils. A long tube was first introduced, and left in position two days; a short tube was then introduced, and had to be worn during the seven days that the child lived. On post-mortem examination ulceration was found at a point to which the long tube reached.

M. Ausset considered the ulcer due to pressure by the point of the long tube, and concluded that in certain cases of diphtheria in very weakly children—children with adenoids, etc.—tracheotomy was to be preferred to intubation.

Arthur J. Hutchison.

Bernheim.—*Primary Tuberculosis of the Larynx.* "Revue Méd. de la Suisse Romande," October 20, 1900.

This paper is founded on twenty-nine cases which have come under the author's observation in which the bacillary invasion of the larynx preceded that of any other organ. In some cases, indeed, no other organ was affected. The author deals at some length (1) with the question of the existence of primary tuberculosis of the larynx; (2) with its pathogenesis; (3) with its clinical and pathological varieties, giving several illustrative cases; (4) with primary lupus of the larynx; (5) with treatment. The paper is too long to be given in abstract here, but the author's conclusions may be stated briefly:

1. The larynx is frequently—more frequently than is generally believed—the seat of a primary tuberculosis. This fact is demonstrated by the twenty-nine cases, in which no other organ was affected. Similar observations have been reported in large numbers by Gouguenheim, Moure, Héлары, Dardano, Heinze, and others.

2. Primary tuberculous laryngitis is distinguished by special characteristics from laryngitis of any other kind. At the outset of the affection one sees little miliary vesicles in the larynx, which are pathognomonic. Later these unite and form superficial ulcers, which invade nearly the whole organ, thus differing from syphilis. The slow progress and the general nutritive disturbances distinguish primary tuberculous laryngitis from simple inflammatory laryngitis.

3. This miliary tuberculous laryngitis may undergo changes and become pachydermatous, papillomatous, or pseudo-polypoid. The tuberculous nature of all these may be easily established by examination of a piece of the tissue, or by inoculation of guinea-pigs. A rapid and harmless means of diagnosis consists in injection of Koch's tuberculin, which gives a pathognomonic local reaction.

4. Primary lupus of the larynx is only a very slowly progressing variety of tuberculous laryngitis.

5. Early diagnosis is of the greatest importance, because in the early stages it is possible to prevent general infection.

6. The true and only effective treatment is that which puts the organism in condition to resist the invasion of the pathogenic microbe.