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BLEEDING FROM THE NOSE AND THROAT.

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*A Post-Graduate Lecture delivered under the auspices
of The Fellowship of Medicine.*

It is more than two thousand years since Hippocrates said, "*Sanguinem superne quidem efferri, qualiscumque sit, malum,*" but it requires no father of medicine from the dead to teach us that the sight of blood is always alarming, both to the patient and to his entourage. Yet he, or she, shows a curious variation in the degree of alarm according to the provenance of the blood. A man may notice occasional, or even frequent, bleeding from the anus for months

without troubling about it; a woman may be aware of a blood-stained discharge from her vagina for years without seeking advice on the subject. Needless to say, both of them are unwise in this neglect.

Importance.—In my own special department of practice, epistaxis, even when recurring, is often neglected unless it is a social inconvenience or becomes profuse. In childhood and adolescence this neglect is not so dangerous as in the adult or elderly. If the blood is vomited the sufferer is more prone to seek advice, although it is less the presence of the blood than the discomfort of vomiting which alarms him. But if the blood is coughed up, and the hæmoptysis recurs or is profuse, then the patient is generally really frightened and speedily consults a physician. It is much to be deplored

that this form of bleeding, the more urgent to the victim, is only too often the one to be minimized, or misunderstood, or neglected by his medical adviser. I will refer to this later.

EPISTAXIS.

Causes.—What are the possible causes of epistaxis? This is a stock question of examiners, and the poor candidate is expected to be able to promptly roll out a long list of them. I cannot say I could myself, from memory, give you a complete catalogue, so I have copied them from the chapter on the subject in my own textbook (!)¹

Causes of Epistaxis.

Local.—Traumatism: blows, falls, surgical treatment. Traumatic abrasion (i.e. nose picking), followed by ulceration or perforation. In recent years this condition has been met with in the degenerates who snuff cocaine up their nose. Multiple telangiectases. Rhinitis sicca and atrophic rhinitis (from separation of crusts). Adenoid growths. New growths, either innocent (like bleeding polypus and naso-pharyngeal fibromata) or malignant. Syphilis.

Rare Local Causes.—Leprosy. Foreign bodies, leeches, worms, and maggots. Lupus. Hay-fever and paroxysmal sneezing. Glanders. Acute and chronic rhinitis.

General Causes.—High arterial tension: as in arterio-sclerosis, hepatic cirrhosis, chronic nephritis, climacteric changes, violent or prolonged exertion or excitement, extremes of heat or cold. High venous pressure: as in mitral stenosis, emphysema, bronchitis, whooping-cough, pneumonia, mediastinal growths, thoracic aneurysm, tumours in the neck.

Toxic Blood States.—Pernicious anæmia, chlorosis, purpura, scurvy, leukæmia, hæmophilia and malaria. All acute infectious diseases, especially enteric and variola. In

the prodromal stage of measles, varicella, typhus, erysipelas, scarlatina, and influenza. Not infrequent in diphtheria, when it is always a grave symptom (it may occur in the early stage when no diphtheritic process is visible in the nose). Ague, rheumatic fever (particularly in children). Rarefied air, as in aviation and mountain climbing. Drugs (phosphorus, the salicylates, chloral-amide, large doses of quinine). Finally, the nose may only be a channel for the escape of blood, as in fractures of the base of the skull.

That is a goodly catalogue! The one cause of epistaxis which the examination candidate never omits is "vicarious menstruation"! After thirty-five years of work in rhinology I cannot say I have ever seen a case!

Age.—Epistaxis is rare in infancy; it increases from the third year until puberty. Afterwards it is more rarely met with until the advent of advanced life, when its occurrence may be a serious symptom.

Sex.—It is commoner in males than in females.

Examination, Diagnosis, Prognosis.—We cannot to-day go into the differential diagnosis and prognosis, but you will recognize how absolutely important this must be in practice. If we were to plug the nose of a patient with nose-bleeding from a fractured base, we might infect his meninges, and he would lose his life. If we were to overlook a cardio-vascular, a hepatic or a cirrhotic cause, our patient would suffer; and if we were to pooh-pooh an epistaxis due to a malignant growth, the patient would lose his chance of life, and we should lose our reputation.

The Bleeding Area.—But one important fact cannot be passed over. It has been shown by statistics that in at least 90 per cent. of all cases—even if the primary cause is scurvy or kidney disease—the bleeding point is situated on a definite spot of the cartilaginous septum. This is called "the bleeding area," or "Kiesselbach's area,"

¹ "Diseases of the Nose and Throat." By Sir StClair Thomson. Third Edition. Cassell and Co. 1926. Pp. 115.

about a quarter of an inch within the vestibule and a quarter of an inch above the floor of the nose. Here the mucous membrane on the quadrilateral cartilage is very thin, and in it is a racemose or varicose leash of vessels which readily burst under one of the general conditions I have noted. To traumatism its site also exposes it from dust, blows, or the sufferer's own forefinger.

cocaine. If not available, some peroxide is effective. Other styptics—perchloride of iron, tannic acid, hazeline, lemon juice, vinegar, and so forth—may be dismissed as being generally ineffective, or not available. If neither of those astringents is at hand, the bleeding area is simply packed with gauze, or a roll of cotton-wool, which will arrest all bleeding until such time as Kiessel-

FIG. 1.—The bleeding area of the septum. Sagittal section of the nose, showing the arteries on the right side of the septum. 1, The quadrilateral cartilage; 2, the vomer; 3, the "locus Kiesselbachii" or vascular area; 4, the artery of the septum; 5, the descending or superior palatine; 6, ethmoidal branches of the sphenopalatine artery; 7, the sphenopalatine artery (from the internal maxillary) or "artery of epistaxis." (After Cozzolino.)—*La Pratica Oto-rino-laringoiatrica*, Anno vi, 1906, No. 4, Agosto, p. 1.

Treatment.—The importance of this large generalization is evident. In nine out of ten cases we have only to apply correctly a styptic and pressure to this spot to control a nose-bleeding; we have only to destroy this leash of vessels to cure it permanently in a large majority of cases. This is best done by the application of a piece of gauze, or pledget of cotton-wool, soaked in equal parts of adrenalin and 10 per cent. of

bach's area can be dealt with. This is best done under the guidance of a nasal speculum and the light reflected from a frontal mirror, by a touch or two of a fine-pointed electrocautery, at a cherry-red heat, and, after the bleeding area has been prepared by the adrenalin-cocaine mixture, the varicosity is destroyed.

Plugging the Nose.—This knowledge—the power it gives us—explains why "plugging

the nose" is a performance rarely seen nowadays, and why Bellocq's nasal sound has disappeared from our armamentarium. If the "bleeding area" cannot be controlled or, in a few cases when a profuse hæmorrhage occurs from some other site, the bleeding nasal cavity is "plugged" in the following manner: A piece of honeycomb sponge, compressed to the size of a small walnut, is tied with the middle of a yard of narrow, white tape. After cocainizing the nose with a 5 per cent. cocaine spray, a soft, rubber, female catheter is slipped along the floor of the nose until the end is seen hanging down in the pharynx, at the back of the mouth. Here it is seized with a pair of forceps and drawn forward through the lips. To it one end of the tape is secured, and the rubber catheter is drawn back, up into the nose, carrying with it one end of the tape, which is thus drawn out through the nostril. By pulling on this the sponge plug is drawn up into the post-nasal space, to fit snugly into the choana. To keep it there, the tape from the nose is secured to the other end of the tape projecting from the mouth, after the anterior naris has had a plug tucked into it. This post-nasal plug should never be left more than twenty-four hours without changing. It is removed by cutting the tape at the nostril and, by means of the other end, drawing the sponge plug out through the mouth.

General Treatment.—In all cases of nose-bleeding the patient should be resting, as cool as possible and not alarmed. If he lies over on his side, pinches the nose with his own thumb and forefinger, and keeps his nostril closed for fifteen minutes by the clock, the majority of cases of epistaxis will be arrested without further interference, thanks to the direct pressure on the epistaxis area and the formation of clot.

If the patient happens to be very nervous and alarmed, a dose of tinct. opii or a hypodermic of morphia may be given.

Other local causes of spontaneous epistaxis are rare. As regards operative bleeding, it is

well to remember that the mere touching of a malignant growth may start a profuse hæmorrhage, and the removal of a piece of necrosed (syphilitic) bone may do the same.

Bleeding from adenoids is rare and never excessive. It may come with mucus through the nostrils anteriorly, or it may come out through the mouth in sleep and stain the pillow.

Blood from the Pharynx.—Bleeding from the pharynx is rare. Dry crusts of atrophic pharyngitis may be blood-stained. A quinsy, if left to rupture spontaneously, may erode a vessel and be followed by violent, or even fatal, bleeding.

FIG. 2.—A lady, aged 52, complained only of one-sided epistaxis. A small and very vascular, polypoid growth was found growing from outer wall of nose, and a removed portion showed malignant disease. The inferior turbinal body, with attached growth and a large part of the antro-nasal wall (as shown in drawing), were removed through a lateral rhinotomy. Recurrence a year later was operated on and followed up with radium. There was no trace of local recurrence when, one year afterwards, she died with symptoms suggesting malignant disease in the small intestine.

Bleeding from the larynx or trachea is a rare event; vascular growths like fibro-angiomata may cause it, but the usual malignant growths only do so when far advanced.

HÆMORRHAGE FROM THE THROAT.

(*Hæmoptysis not of Pulmonary Origin.*)

The laryngologist is not infrequently asked if he can find in the throat the source of origin of expectorated blood, but, as a matter of fact, hæmorrhage from the throat is rare, and is, as a rule, only secondary to some serious local affection. Otherwise the blood, with few exceptions, comes from the

lungs. This source is often overlooked, as the misconception is general that blood from the lungs must be coughed up, or be frothy from admixture of mucus, or be accompanied by physical signs in the chest. But in the early stages of pulmonary tuberculosis there is no catarrh or mucus to become mixed with the blood and no cough, so that pure blood from the lungs may cause no symptoms until it is simply hawked or cleared out of the pharynx.

Blood of pulmonary origin often appears to simply well up into the mouth. The patient may wake in the night and find his mouth filling with blood; or, with one easy cough, he is able to spit out a teaspoonful, or a teacupful, of bright blood, almost pure or with a little mucus, and not necessarily frothy or mixed with sputum.

To distinguish between pulmonary and bucco-pharyngeal blood is sometimes difficult. I am indebted to my friend, Mr. Vlasto, for calling my attention to an article by L. deReynier, a Swiss laryngologist with much experience in this subject gained at Leysin.¹ He suggests that if we carefully inspect the expectorated blood it is generally bright red at first, becoming purple or dark brown in the course of the following hours or days. Now the blood-stained material from the pharynx—according to de Reynier—is only expectorated in the morning hours, and may re-appear every morning for weeks or months. He is of opinion that a good test is to throw the sputum into water; if the blood comes from the pharynx, larynx, or gums, it is at once dissolved on shaking it in the water; if the blood comes from the lungs, it remains one mass and insoluble.

Hæmoptysis from the lungs may be profuse, and neither auscultation, percussion, nor X-rays may be able to detect any physical sign of its source or origin.

Hæmoptysis may also occur in nearly every disease of the lungs and air passages,

including such affections as emphysema, influenzal bronchitis, dilated bronchii, infection of the lungs by streptococci or the *Bacillus coli*, syphilis of the lungs, localized pneumothorax, leakage from an aneurysm, bronchial fluke (*Paragonimus westermanii*), mitral disease, atheroma, and high blood-pressure.¹

The other sources of hæmoptysis can be tabulated as follows:—

- (1) Epistaxis, when the blood flows backwards.
- (2) Adenoids.
- (3) Enlarged veins in the pharynx and around the base of the tongue, especially in gout, cirrhosis of the liver, and influenza.
- (4) Suppuration and ulceration in connection with malignant disease, syphilis, peritonsillar abscess, and (rarely) lupus or tuberculosis.
- (5) Spongy gums.
- (6) Multiple telangiectasis.
- (7) Vicarious menstruation.
- (8) Trauma from accidental injury, the passage of instruments, rupture of veins by vomiting, or surgical operations.
- (9) Laryngeal hæmorrhage, especially in the acute laryngitis of influenza.
- (10) From the trachea—varicose veins, congestion from pressure of enlarged thyroid gland or of an aneurysm.²
- (11) Various blood conditions: purpura, scurvy, pernicious anæmia, leukæmia, hæmophilia, mercurial stomatitis, phosphorus poisoning, cirrhosis of the kidneys or liver, and certain acute fevers, especially enteric and yellow fever, hæmorrhagic small-pox, and influenza.³

¹ Arthur Latham and F. de Havilland Hall, *Med. Press*, Feb. 14, 1917, p. 138, and March 14, p. 222.

² F. Massei, *Arch. Ital. di Laringol.*, Oct., 1898. Pisenti, *ibid.*, Luglio, 1899.

³ James E. Newcomb, *Trans. Amer. Laryngol. Assoc.* 26th Congress, 1906, p. 251.

¹ *Archiv. Internat. de Laryn.*, 1927, Tome vi, April, p. 404.

Gout, according to Semon and Watson Williams, is, comparatively speaking, the most fertile source of pharyngeal hæmorrhage.

Bleeding from the surface of the laryngeal mucous membrane must be distinguished from submucous hæmorrhage. Blood-clots may not be expelled, but remain lodged in or near the vocal cords, so as to simulate the appearances of an angioma, carcinoma, or a soft fibroma.¹

Symptoms.—A slight clearing of the throat is often all that precedes the patient's discovery of blood in his mouth. If it comes in any quantity the expectoration is accompanied by the peculiarly sickening and depressing taste and smell of blood.

When no trace of a leaking vessel is visible, the case should be treated as one of early pulmonary tuberculosis, particularly if any of the suspicious indications mentioned are present.

In my experience, as a laryngologist, hæmoptysis is due to pulmonary tuberculosis in the great majority of cases. When it has been absolutely necessary to demonstrate this, I have done so by passing an endoscope and viewing the blood coming up from one or other bronchus.

It is, indeed, quite rare for hæmoptysis to "come from the throat," except in well-marked local lesions. It is easily, and not infrequently, produced by malingerers making suction on their gums.

Treatment.—Treatment depends on the discovery of the source of bleeding. The local bleeding may require adrenalin, hamamelis (Pond's extract), catechu, or other astringents. The galvano-cautery, if at hand, is often the speediest remedy. When large vessels are eaten into by cancer or abscess, it may be necessary to tie the external or common carotid.

¹ F. Semon, *Arch. f. Laryngol.* iv. 418.

F. Semon, *Anm. des Mal d'Oreille*, xxv. 1899, No. 3, p. 241.

Von Geyer, *Munch. med. Woch.*, 1898, No. 15, S. 457.

The administration of lactate of calcium will increase the coagulability of the blood. A hypodermic injection of morphia, $\frac{1}{8}$ gr. to $\frac{1}{4}$ gr., with atrophine $\frac{1}{200}$ gr. to $\frac{1}{150}$ gr., is one of the readiest, quickest, and most reliable remedies.

In all cases the patient should be ensured complete rest, and fresh cool air. Alcohol and hot fluids should be forbidden. Solid food is not necessarily avoided. Excitement and fear must be guarded against. The sucking of ice, a weak spray of adrenalin, and small doses of opium may be indicated.

TREATMENT OF UTERINE PROLAPSE.

LECTURE DELIVERED AT THE ROOMS OF THE MEDICAL SOCIETY OF LONDON, ON MONDAY, NOVEMBER 14, 1927

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(A Fellowship of Medicine Post-Graduate Lecture.)

LADIES AND GENTLEMEN,—I have chosen for this lecture the subject of prolapse, because it is the commonest important condition met with in diseases of women, and because there is still an almost ineradicable feeling amongst doctors that prolapse cannot be cured by operation. This is an absolute fallacy. By modern methods of treatment prolapse can be cured, both anatomically and symptomatically. Therefore it is very important that the subject should be more ventilated than it has been.

In order to enable you to follow my argument with regard to the method of cure of prolapse, I want, first of all, to go into a few anatomical details as to the pelvic arrangements, so that you may realize why it is that the condition of prolapse occurs.

The word itself, as applied to the uterus, is a misnomer; the uterus has nothing to do with the condition. It is really a displace-