

infusion of saline solution, a chill is often seen, but not easily explained.

True chill, with shivering and chattering teeth, is distinguished from *chilliness* without any shivering. Chilliness is far less significant and often goes without fever; true chill rarely does.

The cause of true chills can usually be determined by blood examination (leucocytosis, malarial parasites) and by the general physical examination.

CHAPTER II.

THE HEAD AND FACE; THE NECK.

THE HEAD AND FACE.

ALMOST all that we can learn about the manifestations of disease on the head and face is to be learned by the use of our eyes, by *inspection*, as the term is. Other methods—percussion, *x*-ray, palpation—yield but little. I shall begin at the top.



FIG. 1.—Hydrocephalus.

I. THE CRANIAL VAULT.

1. *The Shape and Size of the Cranium.*

The shape and size of the cranium concern us, especially in children.

(a) *Abnormally small* crania (microcephalia) are apt to mean idiocy, especially if the sutures are closed.

(b) An *abnormally large* head is seen in *hydrocephalus* (see Fig. 1), associated with enormous "open" areas uncovered by bone and a peculiar downward inclination of the eyes, which are partly covered by the eyelids and show a white margin above the iris. This condition is to be distinguished from the

(c) *Rachitic head*, which is flatter at the vertex and more protuberant at the frontal eminences, giving it a *squarish* outline, contrasted with the *globular* shape and rounded vertex of the hydrocephalic. In rickets there are no changes in the eyes.

(d) In adult life an enlargement of the skull, due to bony thick-



FIG. 2.—Paget's Disease. (Edes.) *a*, Before onset of hyperostosis cranii. *b*, After onset of hyperostosis cranii.

ening, forms part of the rare disease, *osteitis deformans* (Paget's disease), associated with thickening and bowing of the long bones (see Fig. 2).

2. The Fontanels.

The anterior and larger fontanel remains about the same size for the first year of life, then diminishes, and closes about the twentieth month. The posterior closes in about six weeks. In rickets, hydrocephalus, hereditary syphilis, and cretinism, the fontanels and sutures remain open after the normal time limit.

(a) *Bulging fontanels* mean increased intracranial tension (hydrocephalus, hemorrhage, meningitis, or any acute febrile disease without dyspnoea). (b) *Depressed fontanels* are seen in severe diar-

rhœa, wasting diseases, collapsed states, and acute dyspnoic conditions.

3. The Hair.

(a) A *rachitic child* often rubs the hair off the back of its head by constant rolling on the pillow. (This is associated with profuse

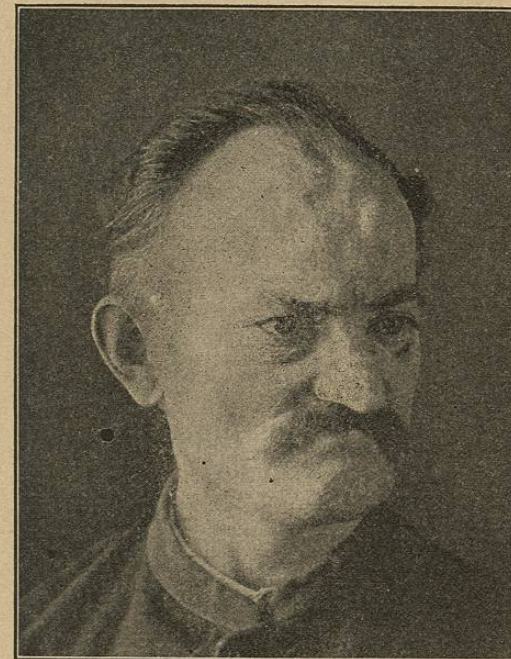


FIG. 3.—Syphilis of the Frontal Bone. (Curschmann.)

sweating of the head.) Patchy baldness occurs in the skin disease *alopecia areata*, and occasionally over the painful area in trigeminal neuralgia.

(b) *General loss of hair* occurs normally after many acute fevers and with advancing age. Early baldness (under thirty-five) is often hereditary. *Syphilis* may produce a rapid loss of hair, local or

general, and the same is true of *myxædema*; but in both these diseases the hair usually grows again in convalescence.

(c) *Parasites (pediculi)* are worth looking for in the dirtier classes and those associated with them (teachers). Their eggs ad-

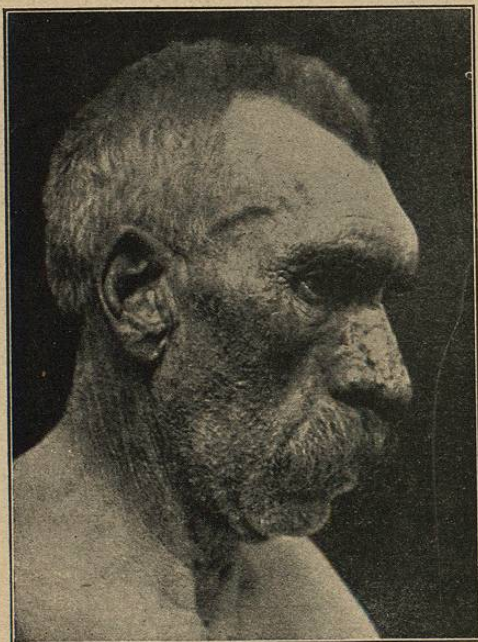


FIG. 4.—Acromegalia.

here to the hairs and are familiarly known as "nits." An eczema or itching dermatitis often results.

II. THE FOREHEAD.

Scars, eruptions, and bony nodes are important.

(a) *Scars* may be due to trauma or to old syphilitic periostitis. The epileptic often cuts his forehead in falling.

(b) *Eruptions* often seen on the forehead are those of acne, syphilis, and smallpox. These may resemble each other closely, and are to be distinguished by the history, the presence of lesions



FIG. 5.—Typical Face in Acromegaly.

on other parts of the body, and the concomitant signs (fever, prostration, etc.).

(c) *Nodes* may be the result of many bumps in childhood or may be caused by a syphilitic periostitis (see Fig. 3). The history must decide.

III. THE FACE AS A WHOLE.

Very characteristic even at a glance is the face of (a) *acromegalia*. A strong family likeness seems to pervade all well-marked

cases (see Figs. 4 and 5). The huge, bony "whopper jaw" is the most striking item, then the prominent cheek bones, and the ridge above the eyes. The nose and chin are very large.

(b) *Myxœdema* (see Fig. 6) is not so characteristic and might easily be mistaken for nephritis or normal stupidity with obesity. The presence of dry skin, falling hair, mental dulness, and subnormal temperature, all supervening simultaneously within a few weeks or



FIG. 6.—Myxœdema.



FIG. 7.—Cretinism.

months, make us suspect the disease. Palpation shows that the puffiness of the face is not true œdema, as it does not pit on pressure.

(c) *Cretinism*—the infantile form of myxœdema—can generally be recognized by sight alone (see Fig. 7). Here the tongue is often protruded, and there are often pot-belly and deformed legs.

(d) In *adenoids* of the nasopharynx the child's mouth is often open, the nose looks pinched, the expression is stupid (see Fig. 8).

There is a history of mouth-breathing and snoring, with frequent "colds," a high-arched palate, and perhaps deafness.

(e) In *paralysis agitans* the "mask-like" face shows almost no change of expression, whatever the patient says or does. The neck is usually inclined forward, and so rigid that when the patient



FIG. 8.—Adenoid Face. (Schadle.)

wishes to look to right or left his whole body rotates like a statue on a pivot.

(f) In *Graves' disease* (exophthalmic goitre) the startled or frightened look is characteristic, though the expression is almost wholly due to the bulging of the eyes and their quick motions (Fig. 9).

(g) In *leprosy* the general expression is of a *superabundance of skin* on the patient's face, reminding us of some animal ("leonine face") (Fig. 10).

(h) In early *phthisis* one often notices the clear, delicate skin,

fine hair, long eyelashes, wide pupils—"appealing eyes." Pallor and a febrile flush (hectic) come later in some cases.

(i) *After vomiting* the face has often a drawn, pinched, anxious look, which has often been supposed to be characteristic of general peritonitis, intestinal obstruction, or other diseases accompanied by vomiting; but I do not recognize any single expression as characteristic of peritoneal lesions.

(j) *Chronic alcoholism* may



FIG. 9.—Exophthalmic Goitre. (Meltzer.)



FIG. 10.—Face in Leprosy.

be shown not only in a red nose, but oftener in a peculiar, *smoothed-out* look, due, I suppose, to an extra but evenly distributed accumulation of subcutaneous fat.

(k) An *œdematous* or swollen face is much more easily noticed by the patient or his friends than by one who is not familiar with his normal look. It usually points to nephritis, but may occur in heart disease, and sometimes (especially in the morning) without any known cause. When combined with anæmia, the puffy face gives a peculiar "pasty" look (chronic diffuse nephritis).

IV. MOVEMENTS OF THE HEAD AND FACE.

1. *The Shaking Head.*

This occurs often in old age, occasionally in *paralysis agitans* (which oftener affects the hands), and in *toxic* conditions (alcohol, tobacco, opium). In some cases no cause can be found.

2. *Spasms of the Face.*

Spasms of the face, *i.e.*, sudden, quick contractions of certain facial muscles, such as winking-spasm, jerking of a corner of the mouth, or sniffing, occur chiefly:

(a) As a matter of *habit* without other disease.

(b) As a part of the disease *chorea*, associated with similar "restless" motions of the hands and feet. We often see these spasms in school-children; occasionally in pregnant women.

(c) By *imitation*, in schools and institutions, these spasms may spread like an epidemic.

From habit spasms, which persist for months or years in one or two groups of muscles, true *chorea* is distinguished by its involvement of the hands, feet, and other parts, by its frequent association with joint pain and endocarditis (see page 493), and by its short course (eight to ten weeks on the average).

In hysterical conditions and hereditary brain defects, various other spasms occur (see below, page 506).

V. THE EYES.

I shall not attempt to deal with lesions essentially local (such as a "sty"), and shall confine myself to data that have diagnostic value in relation to the rest of the body.

1. *Œdema of the Lids.*

Œdema of lids, especially the lower, often accumulates in the night and is seen in the early morning, without known cause or

after a debauch. In other cases it usually points to the existence of:

- (a) *Nephritis* (prove by urinary examination).
 - (b) *Anæmia* (prove by blood examination).
 - (c) *Measles* and *whooping-cough* (eruption, paroxysms of cough).
- Rarer causes are *trichiniasis*, *angioneurotic œdema*, and *erysipelas*.

Trichiniasis is recognized by the presence of fever, muscular tenderness, and an excess of eosinophiles in the blood.

In *angioneurotic œdema* there is usually a previous history of similar transitory swellings in other parts of the body.

The acute onset, red blush, high fever, and general prostration distinguish the œdema of *erysipelas*.

2. *Dark Circles under the Eyes*

may appear in any debilitated stage, *e.g.*, from loss of sleep, hunger, menstruation, masturbation, etc.

3. "*Pink Eye*" or *Conjunctivitis*.

This affection forms part of hay fever, measles, yellow fever, and some cases of influenza. It may also occur as an independent infection. It follows overdoses of iodide of potash or arsenic. The *whole conjunctiva is reddened*, in contradistinction from the reddening about the iris seen in *iritis*.

4. *Jaundice*.

Jaundice, the yellow coloration of the white of the eye by bile pigment, is easily recognized and can be confounded only with subconjunctival fat, which differs from *jaundice* in that it appears in *spots and patches*, not covering the whole sclera, as *jaundice* does.

The skin, mucous membranes, urine, and sweat are also bile-stained in most cases, and the circulation of the bile in the blood often produces *slow pulse*, *itching*, and *mental depression*. Lack of bile in the gut leads to flatulence and clay-colored stools.

The commonest causes are: (a) *Biliary obstruction* (catarrh,

stone or tumors obstructing the bile ducts, hepatic cirrhosis, or syphilis constricting them).

(b) *Toxæmia* (malaria, sepsis, icterus of the new-born, pernicious anæmia).

5. *The Pupils*.

The *normal reflexes* to light and distance are tested as follows: Let the patient face the light and cover one eye with the hand. On withdrawing the hand, the pupil contracts. Then turn the patient away from the light and let him look at the farthest corner of the room. The pupil expands. Make him look at your finger a few inches distant from his eyes. The pupil contracts. Each pupil should be examined separately.

The value of the pupils in diagnosis has been greatly overestimated. There are, in fact, comparatively few conditions in which they yield us important diagnostic evidence, for, although they are very often abnormal, the abnormalities are seldom characteristic of any single pathological condition and throw little light on the diagnosis.

A. THE ARGYLL-ROBERTSON PUPIL reacts to distance, but not to light. It is of great value as a factor in the diagnosis of *tabes dorsalis* and *dementia paralytica*.

B. DILATED PUPILS.—(a) Many phthisical patients show a more or less *transient dilatation* of one or both pupils. (b) *Blindness or deficient sight* (from any cause) may cause dilatation of the pupil. (c) Other common causes are distress or strong emotion from any cause, many fevers and comatose states, and the use of mydriatic drugs.

C. CONTRACTED PUPILS are common in old age and in photophobia from any cause. Disease high up in the spinal cord (*tabes*, general paralysis, etc.) may produce contraction (*spinal myosis*) by paralyzing the sympathetic dilators. *Aortic aneurism* may produce in the same way contraction of one pupil (see below, page 284).

D. CONTRACTION WITH IRREGULAR OUTLINE and sluggish reactions is often seen in *iritis* as a result of adhesions to the lens (*posterior synechiæ*).

6. *The Cornea.*

(a) *Arcus senilis*, a grayish ring at the circumference of the cornea, is one of the classical signs of old age and arteriosclerosis.

(b) *Syphilitic keratitis*, usually seen in the hereditary form of the disease, produces an irregularly distributed haziness of the cornea, usually in both eyes and before the sixteenth year. Diagnosis depends on other evidences of syphilis.

VI. OCULAR MOTIONS.

(a) *Ptosis*, or dropping of the eyelid, is usually unilateral and dependent on paralysis of the third nerve. Its most frequent cause is syphilis. The eye is usually drawn out by the action of the unparalyzed external rectus. Moderate, bilateral ptosis is common in hysterical and neurasthenic conditions.

(b) *Squint* (strabismus) is called *external* if the eye turns out, *internal* if it turns in. Of its many types and causes I mention only the acute cases due to intracranial lesions, such as tuberculous and epidemic meningitis, syphilis, tumors.

(c) *Nystagmus* is a rapid horizontal oscillation of both eyeballs. It may be the result of albinism or of various local eye troubles, but is an important member of the symptom group characteristic of *multiple sclerosis*. It may, however, occur in many other brain lesions.

VII. THE RETINA.

The lesions which are of greatest interest in general medicine are: Retinal hemorrhage, optic neuritis, and optic atrophy.

(a) *Retinal hemorrhages*, with or without other retinal changes, are important signs of *nephritis*, *grave anæmias*, and *diabetes*.

(b) *Optic neuritis* (usually bilateral) is of great value in the diagnosis of *brain tumors*, *tuberculous meningitis*, and brain abscess. It also forms part of the lesions in many cases of nephritis and diabetes.

(c) *Optic atrophy* may be the end result of any of the types of optic neuritis just mentioned, or in a primary form is important

evidence of *tabes dorsalis*. Many cases occur without any known cause.

VIII. THE NOSE.

1. *Size and Shape*.—The enlargement of all the tissues of the nose occurring in *acromegaly* has already been mentioned. In *myxœdema* the nostrils are sometimes thickened and the whole nose loses its delicacy of shape. A *red nose* is popularly and correctly associated with *alcoholism*, but in many cases identical appearances are produced by *acne rosacea* or by *lupus erythematosus*, as well as by circulatory anomalies without any other disease.

Falling in of the bridge of the nose may be due to *syphilis of the nasal bones*, especially when there are scars over the sunken portion, but is sometimes present without any disease.

The small, narrow nose associated with *adenoid growths* has already been mentioned.

2. The *nostrils* move visibly in many conditions involving *dyspnoea* (diseases of the heart and lungs, acute infections, etc.), and this is sometimes useful in suggesting to the physician the possibility of pneumonia, hitherto unsuspected. *Dried blood in the nostrils* may be of value as evidences of recent nosebleed.

3. *Nosebleed* suggests especially trauma, infectious fevers (particularly typhoid), and hemorrhagic diseases (purpura, hæmophilia, acute leukæmia).

4. A *nasal discharge* in a young infant ("snuffles") suggests hereditary *syphilis*. In adults the familiar "cold in the head" may need a bacteriological examination to exclude the possibility of *nasal diphtheria* or to confirm a diagnosis of influenza.

5. A small, indolent, *long-standing sore* on the nose or near the corner of the eye should always suggest *epithelioma* and *tuberculosis*. Microscopic examination may be necessary to determine the diagnosis.

6. The consideration of local disease within the nose does not fall within the scope of this book, but is suggested by local pain, difficulty in breathing through the nose, frequent "colds," and asthma.

(For the examination of *the ears*, see below, p. 503.)

IX. THE LIPS.

1. *Pallor* of the mucous membrane of the lips suggests, though it never proves, anæmia. No diagnosis of anæmia should be made without at least testing the hæmoglobin (Tallqvist's scale). One minute suffices.

2. *Cyanosis*, a purplish or slatey-blue color of the lips, occurs in some healthy persons from simple "weathering." When well marked, however, it should always suggest:—(a) Heart disease (especially mitral or congenital lesions).—(b) Lung diseases (especially emphysema and pneumonia).—(c) Poisoning by acetanilid or other coal-tar antipyretics, producing methæmoglobinæmia.

The last is easily tested by noting the brownish (not red) tint of the blood when soaked into filter paper, as in performing Tallqvist's hæmoglobin test; the test should be confirmed by the history. Disease of the heart or lung is identified by physical examination of the chest.

3. *Parted lips*, an open mouth, may be a mere habit or may be due to nasal obstruction (adenoids). Idiots and cretins are very apt to keep their mouths open, whether there is enlargement of the tongue or not. Dyspnœa may compel a patient to keep his mouth open so as to get more air.

In cold weather a *crack* or *fissure* may appear, usually in the centre of the lower lip, and in poorly nourished individuals may persist for weeks. At the corners of the mouth fissures or cracks may be due to chapping or "*cold-sores*" (herpes), but if they persist for weeks in young children they are very suggestive of syphilis. White linear scars radiating from the corners of the mouth are presumptive evidence of healed syphilitic lesions, oftenest congenital.

4. The *mucous patches* of syphilis—white, sharply bounded areas about the size of the little-finger nail—are often seen at the junction of the skin with the labial mucous membrane, especially at the corners of the mouth.

5. *Herpes* ("cold sores") is due to a lesion of the Gasserian ganglion, with resulting "trophic" disturbances of the regions sup-

plied by the trigeminal nerve. Appearing first as a cluster of vesicles ("water blisters") which break and leave a small sore near the mouth, herpes is to be distinguished by: (a) its distribution, near the terminations of some branch or branches of the trigeminal nerve ("herpes frontalis, nasalis, labialis"); (b) by its lasting but a few days; and (c) by the absence of similar lesions elsewhere. It may be connected with a "cold" (which is often a disease of the trigeminus), but it frequently occurs without any discoverable cause. Herpetic stomatitis ("canker sores") may accompany it.

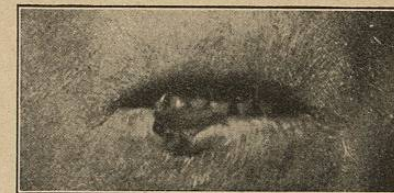


FIG. 11.—Epithelioma of the Lip.

6. *Epithelioma*¹ of the lip and *chancre* should be suspected whenever a long-standing sore is discovered there. Epithelioma occurs almost always on the lower lip in a man past middle life (see Fig. 11). It lasts longer than chancre, is slower in producing glandular

enlargement at the angle of the jaw, and is not associated with other syphilitic lesions.

7. *Chancre of the lip* is commoner in women and may occur at any age, especially under forty. The sore usually lasts but a few weeks, excites early enlargement of the glands, and is usually associated with other manifestations of syphilis (see Fig. 12).



FIG. 12.—Chancre of the Lip.

8. *Angioneurotic œdema* appears as a sudden, painless, apparently causeless swelling of the whole

¹ It does harm to call this lesion "*cancer*" because this term is so firmly associated in the lay mind with metastasis, recurrence, and death that unnecessary suffering may result when the patient or his family learns that he has "*cancer*."