

Definition

“The art of the practice of medicine is to be learned only by experience, tis not an inheritance; it cannot be revealed. Learn to see, learn to hear, learn to feel, learn to smell and know that by practice alone can you become expert.” Osler (1919).

Technique

The general appearance of a patient may provide diagnostic clues to the illness, severity of disease, and the patient's values, social status, and personality. The astute physician will begin to gather this information immediately upon meeting the patient. By observing gait, facial features and expression, handshake, and quality of voice, the physician may begin to detect unique qualities and potential problems. Physicians who have the ability to remember a patient's name and face for many years are those who pay intense attention to the initial encounter.

No detail is unimportant. The following should be evaluated systematically:

- Facies and expression (Table 217.1)
- Gait (Table 217.2)
- Clothing and paraphernalia (Table 217.3): Are clothes appropriate for the time of year? What does jewelry or makeup say about the patient? Is a particular scarf, hat, or patch covering an area of deformity or disease?
- Stature and habitus (Table 217.4): Observe the patient's body build. Very short stature will be seen in

dwarfism, pseudohypoparathyroidism, Turner's syndrome, or prepubertal steroid therapy. Tall and lanky individuals with long, thin extremities suggest Marfan's syndrome.

Table 217.2
Clues to Disease from Gait

Hemiplegic gait: Circumduction of the paralyzed limb with the ball of the great toe touching the ground as it sweeps around; the upper limb is flexed and internally rotated
Cerebellar ataxic gait: Truncal ataxia is seen in midline lesions; with involvement of one or other cerebellar hemisphere, the patient reels to the side of the lesion
Shuffling or festinating gait: Seen classically in Parkinson's disease
Marche à petit pas: Seen in the elderly and also in frontal lobe disease
High-stepping gait: Seen in conditions where there is paralysis of the extensor muscles of the ankle
Stamping gait: Occurs in tabes dorsalis, where the patient's damaged proprioceptive pathways result in uncertainty of the position of the limb in space; the gait is also wide based
Scissors gait: Seen in spastic paraplegia with extensive adductor spasm; one leg crosses in front of the other as the patient walks
Waddling gait: Occurs in muscular dystrophy; associated with marked lordosis
Hyetical gait: Does not correspond to anatomic lesions; e.g., the patient may drag the paretic limb instead of circumducting it

Table 217.3
Clues to Disease from Clothing and Paraphernalia

Copper bracelets, used by arthritic
Untied shoes, pedal edema
Toe cut out of shoe, gout
Cap, scarf to hide scalp disorder or skin lesion
Inappropriate heavy or light clothing as occurs in thyroid disease
Unusual jewelry or makeup as reflection of lifestyle

Table 217.4
Clues to Disease from Stature and Habitus

Syndromes of pituitary dwarfism, ovarian dysgenesis, Turner's syndrome
Bowed legs of rickets
Truncal obesity of Cushing's disease
Long limbs in proportion to trunk in Marfan's syndrome
Large hands and feet of acromegaly
Asymmetry in fibrous dysplasia
Stooped posture, decreased height, fat concentrated at hips in the elderly

Table 217.1
Clues to Disease from Facies and Expression

Endocrine disease: Prognathism of acromegaly; moon facies of Cushing's syndrome; prominent stare of thyrotoxicosis; dull appearance and large tongue of cretinism, loss of lateral eyebrows, puffy face, dry skin and brittle hair of myxedema; vitiligo and increased freckling in Addison's disease
CNS disease: Masklike facies of parkinsonism; drooping eye, sleepy appearance in myasthenia gravis; "coma vigil" in the typhoid state (and any prolonged febrile illness); risus sardonicus in tetanus
Cardiovascular disease: Supravalvular aortic stenosis with elfin facies; prominent earlobe crease associated with coronary heart disease; acral deformities in Holt–Oram syndrome
Infections: Leonine facies of leprosy; slapped-cheek appearance of Fifth disease
Renal disease: Periorbital edema in acute nephritis; earlobe abnormalities in some congenital renal diseases
Miscellaneous disorders: Taut, stretched facies of scleroderma; butterfly rash in lupus erythematosus; hirsutism from drug (e.g., minoxidil therapy)

- Posture and decubitus (Table 217.5): The normal state of resting tone in muscle groups results in healthy, upright posture with tone greatest in antigravity muscles. Alteration in this tone may result in the characteristic postures of Parkinson's disease, stroke, or cerebellar abnormalities. *Decubitus* refers to the observed posture of the patient in bed. Does the patient prefer to lie on one side, such as occurs in the lateral decubitus position of a patient with abdominal disease? Is the patient lying very still in bed, as might occur in peritonitis, or is there flailing such as that seen with renal colic?
- Odor of breath and body (Table 217.6): Does the breath suggest poor hygiene or anaerobic infection? Does the comatose patient have the fruity odor of diabetic ketoacidosis?

Basic Science

The physician is much like a detective, searching for clues in the history and physical examination, reserving judgment during the quest for conclusive data. Read, for example, the following passage that emphasizes Sherlock Holmes' powers of observation:

"'Pon my word Watson, you are coming along wonderfully. You have really done very well indeed. It is true that you have missed everything of importance, but you have hit upon the method, and you have a quick eye for colour. Never trust to general impressions, my boy, but concentrate yourself upon details. My first glance is always at a woman's sleeve. In a man it is perhaps better first to take the knee of the trouser. As you observe, this woman had push upon her sleeves, which is a most useful material for showing traces. The double line a little above the wrist, where the typewritist presses against the table, was beautifully defined. The sewing machine, of the hand type, leaves a similar mark, but only on the left arm, and on the side of it farthest from the thumb, instead of being right across the broadest part, as this was. I then glanced at her face, and observing the dint of a pince-nez at either side of her nose, I ventured a remark upon short sight and typewriting which seemed to surprise her."

Table 217.5
Clues to Disease from Posture and Decubitus

Parkinsonian rigidity
Hemiplegic posture in cerebrovascular disease; flexor hypertonia in upper limb with extensor hypertonia in lower limb
Cerebellar posture
Opisthotonos of meningitis
Flailing in bed with renal colic; very still in bed with peritonitis
Darting glances, fidgety patient who is excessively nervous
Tonic distortions in dystonia musculorum
Chorea of Huntington or rheumatic fever; torticollis

Table 217.6
Clues to Disease from Odor of Breath and Body

Alcohol
Fruity odor in ketoacidosis
Fecal odor of anaerobic infection
Odor of uremia or musty odor of liver disease

"It surprised me."

"But, surely it was obvious. I was then much surprised and interested on glancing down to observe that, though the boots which she was wearing were not unlike each other, they were really odd ones; the one having a slightly decorated toe-cap, and the other a plain one. One was buttoned only in the two lower buttons out of five, and the other at the first, third and fifth. Now, when you see that a young lady, otherwise neatly dressed, has come away from home with odd boots, half-buttoned, it is no great deduction to say that she came away in a hurry."

General appearance demands less data collection than any of the other represented items of database content. Yet information gleaned from the patient appearance is particularly valuable, since it is usually the first bit of objective data. Examining the general appearance of the patient may be likened to surveying the forest before walking among the trees. Writings of 50 or more years ago contain the very best descriptions relating patient appearance to disease. Osler's detailed description of the patient with typhoid fever is a classic example. The sensitivity and specificity of patient appearance have withstood the test of time. Excellent clinicians continue to use this technique with high yield.

Clinical Significance

What can be learned by looking into a patient's face and eyes? The eyes have been called the windows of the soul, the face the mirror of the mind. Authors and poets have described the importance of such observation. Physicians will long remember some of their patients' faces, the pain, anger, or pleading that can be so vividly expressed by the human face. Clues to endocrine and physiologic abnormalities may also become apparent—the rounded facies of Cushing's disease, the prominent jaw and frontal bossing of acromegaly, or the exophthalmos of hyperthyroidism. Icteric sclera may tell more about a patient's alcohol problem than can be stated. Pallor may quickly explain shortness of breath. Lateral thinning of the eyebrows may suggest hypothyroidism; periorbital edema may represent the nephrotic syndrome; and a butterfly rash may predict lupus erythematosus.

A simple handshake may help assess the circulatory system, suggest active inflammation in the patient with arthritis, or differentiate the cold and moist hands of the anxious patient from the warm and moist ones of the thyrotoxic patient.

The patient's voice may suggest fear, depression, or mania. Speech can also be the first clue to dysarthria or aphasia. The thickened, low pitch of hypothyroidism or hoarseness of laryngeal carcinoma can be detected by a careful listener.

Observation of a shuffling gait will require a particular review of symptoms for signs of Parkinson's disease and a physical examination particularly directed toward the assessment of mobility. Similarly, gait may suggest a mild hemiparesis secondary to stroke, or the ataxia of cerebellar disease.

An illustration of what the patient's appearance can reveal is shown by the following case:

The patient is from a rural area, brought to the clinic by family members. He is cachectic and thin; his clothes fit loosely. His face shows great sadness and fear. His speech

is difficult, his mouth dry, and a fecal odor is evident on his breath. He is pale, his sclera are icteric, and his head bobs and body jars with each heartbeat. On shaking hands, his skin is warm and his nails have subungual hemorrhages. A hole has been cut out of his shoe where the large toe protrudes.

This patient is extremely ill, and only a detailed history and physical examination will provide the necessary data for diagnosis and treatment. However, important information has already been collected and can be used to make hypotheses and chart a further course. The patient has a chronic debilitating disease. Perhaps his fears of medical care have delayed presentation and resulted in advanced disease. The odor of his breath suggests poor oral hygiene and the head bobbing suggests advanced aortic regurgitation. This presentation could be consistent with subacute endocarditis. Subungual hemorrhages provide further support for this hypothesis. His pale complexion and scleral icterus may be caused by a hemolytic anemia secondary to endocarditis; but a chronic hemolytic anemia might cause gout, requiring the modified shoe.

These hypotheses are generated by data obtained from the patient's general appearance. The possibilities will require confirmation by more detailed history (has there been fever, chills, weight loss, night sweats), physical examination (is there an aortic regurgitant murmur, splenomegaly or podagra), and laboratory data (blood cultures, complete blood count, peripheral smear, uric acid). But we have used the patient's general appearance to begin the scientific process that will eventually lead to accurate diagnosis.

References

- Cheraskin E, Ringsdorf WM Jr. Predictive medicine: a study in strategy. Mountain View, CA: Pacific Press Publishing, 1973.
- Feingold M, Gellis SS. Syndrome identification and consultation. *Am J Dis Child* 1971;121:82-83.
- Osler W. The principles and practice of medicine. New York: D Appleton, 1892;2-39.
- Osler W. The teacher. *Johns Hopkins Hosp Bull* 1919;30.
- Roberts HJ. Difficult diagnosis: a guide to the interpretation of obscure illness. Philadelphia: W.B. Saunders, 1959.