

Leper

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LEPER lep'ər; **LEPROSY** lep'rə-sē [Heb *šāra·aṭ*; Gk *lépra*].

A leper suffers from a specific form of mycobacterial infection that was dreaded in antiquity and that until A.D. 1960 was regarded as intractable and incurable. To reduce the psychological trauma reported by sufferers, the condition has been renamed "Hansen's disease," after G. A. Hansen, who discovered the causative organism (see III below).

I. Terminology

Both ancient and modern writings show considerable confusion about the terminology for leprosy. Heb *šāra·aṭ* is of uncertain provenance and meaning, having been related variously to the roots for "strike," "become disfigured in the skin," "erupt," and "hornet." Since the ailment is given more prominence than any other in Scripture, the inability to determine the term's derivation is very unfortunate. In Lev. 13 *šāra·aṭ* is evidently used in a technical sense, describing a class of pathological conditions. If related to Akk *šinnītu*, "eruption," the root can describe any type of cutaneous eruptive lesion, including clinical leprosy. The comprehensive nature of *šāra·saṭ* is indicated by its application not only to human pathology but also to molds, mildews, and mineral efflorescence in the walls of buildings or on fabrics.

The LXX translates *šāra·aṭ* by the comprehensive term *lépra*, which for the Greeks signified an ailment that resulted in a scaly condition of the skin. *Lépra* was associated by Herodotus (i. 138) and Hippocrates (who named it the "Phoenician disease") with *leúkē* a cutaneous affliction characterized by a localized absence of pigment, probably the modern leucoderma. Galen (A.D. 130–201) and some Greek medical writers before him employed *eléphas* or *elephantiasis* for a more serious cutaneous disease that seems to have corresponded closely to modern clinical leprosy. The Romans

generally preferred the Greek term *lépra* to the more cumbersome *elephantiasis Graecorum* ("of the Greeks"), and the Vulgate uses *lépra* to render Heb *šāra·aṭ*. Hence "leprosy" occurs in later English versions of the Bible.

Modern versions have difficulty rendering the obscure Hebrew terms in Lev. 13, which contains diagnostic material intended for priests of the 2nd millennium B.C. In v 2, e.g., Heb *šē·ēṭ* (Gk *oulē*) is translated "rising" in the AV, "swelling" in the RSV, and "discoloration" in the NEB. For Heb *sappaḥaṭ* (Gk *sēmasía*) in the same verse, the AV has "scab," the RSV "eruption," and the NEB "pustule." Heb *baheṛeṭ* (Gk *tēlaúgēma*) is variously rendered "bright spot" (AV), "spot" (RSV), and "inflammation" (NEB). Particularly unfortunate is the NEB's use of "malignant skin-disease" for *šāra·aṭ*, which is a comprehensive Hebrew term describing a variety of skin afflictions. Some of these were benign, and the priest could pronounce the sufferer clean. Only one form of *šāra·aṭ*, a chronic, spreading affliction, was deemed malignant by the diagnostic procedure and merited the strictures of vv 45f.

II. Antiquity of Leprosy

This dreaded disease is supposed to have existed in India and China from ca 4000 B.C., but this dating is very difficult to establish factually. Kinnier Wilson suggested that leprosy may have been the incurable skin condition mentioned in an Old Babylonian omen tablet, since the symptoms include loss of skin pigment, odor, and an apparent outbreak of papules (J. V. Kinnier Wilson, *Revue d'assyriologie et d'archéologie orientale*, 60 [1966], 47). Although serious skin diseases were known to both the Sumerians and the Babylonians, it is impossible to ascertain whether any of the technical terms in the various texts refer to leprosy. But probably the Mesopotamians did become familiar with leprosy during the 3rd millennium B.C.

The disease seems to have been endemic in Egypt from at least the Old Kingdom period (ca 2700–2400 B.C.), and if the term *ukhedu* in the

Ebers Papyrus indicates a form of clinical leprosy, then the ailment would have been familiar to the Egyptians before 1500 B.C. *Ukhedu* does seem to describe a malignant disease, but the identification with leprosy is not definite. A malformation in the upper jaw of an Egyptian mummy, ca 1400 B.C., was once thought to be an instance of leprosy but is now regarded as the result of chronic gingival infection. Some writers have expressed surprise at the paucity of cases of leprosy found in Egyptian mummies, since Lucretius (99–55 B.C.) claimed that *eléphas* (leprosy) originated in Egypt. Most probably, however, leprous Egyptians died in some isolated place and were never mummified.

Leprosy was already becoming globally distributed in the 7th cent B.C., and by ca 250 B.C. it was being reported by Greek physicians. It spread slowly west across Europe, and by ca 40 B.C. it had entered the British Isles.

In view of the lengthy tradition attaching to the existence of the disease, it seems ill-advised to suppose that the Hebrews became acquainted with the affliction only after they had been in sedentary occupation of Canaan for some time. Liberal writers who accept a postexilic date for Leviticus to demonstrate that *šāra·at* had nothing to do with clinical leprosy are actually working against their own theoretical postulates, since the later that Leviticus is dated, the more probable it is that the chronic form of *šāra·at* was Hansen's disease, which was unquestionably in Palestine by the 4th cent B.C.

III. Symptomatology and Diagnosis

The cause of leprosy is the minute rod-shaped organism *Mycobacterium leprae*, identified by the scientist G. A. Hansen in 1871–1873. (As his terminology indicates, Hansen thought that the infecting agent is a fungus, but it is now known to be a bacillus or bacterium.) Hansen's organism is similar to Koch's bacillus *Mycobacterium tuberculosis* (which causes tuberculosis); indeed, the two bacilli are

possibly of common origin, having become different through mutation.

To speak of leprosy symptomatology is to raise some fundamental philosophical issues related to all of human pathology. In the strictest sense there are no such entities as "diseases"; a disease is actually a collection of symptoms that are given a designation for convenience. One must realize that the designation may describe only the principal symptoms, and that a person need not have all the attributed symptoms to have the disease. An equally significant observation is that the pattern, distribution, and character of some diseases have changed over the centuries. Thus Browne (p. 8) properly warned about the dangers of retrospectively diagnosing diseases mentioned in ancient literature, especially if the terminology is indeterminate.

As already noted, Heb *šāra·at* in Lev. 13–14, although technical and obscure, is known to denote a variety of related conditions (cf. the broad pathological and metaphorical uses of "cancer"). The symptoms of *šāra·at* are detailed in Lev. 13 so that the Hebrew priest-physician could make a differential diagnosis. Since medical legislation in the Torah has a preventative nature, the priest as diagnostician functioned as a health officer more than the Babylonian or Egyptian priest-physician did. The affliction that the Hebrew priest would carefully inspect could have arisen spontaneously (vv 2–6), or after a prodromal interval of unspecified length (vv 7f). It could have succeeded a furuncle, a carbuncle (vv 18–23), or a burn (vv 24–28), or it could have developed upon the beard, the head, or elsewhere on the body (vv 29–44). Preliminary symptoms could include the presence of subcutaneous swellings or nodules (*šē·ēt*), a cuticular scab (*sappaḥat*), and whitish-red spots or reddish areas of skin (*baheret*). If a person with one or more of these symptoms that had turned into a leprous disease presented himself to a priest (13:2), the priest pronounced him leprous after inspection if the local hair had turned white (*leucotrichia*) and if

the affliction seemed to have penetrated the skin (v 3). If the person did not have the last two symptoms, he was quarantined seven days, and then seven more if the symptoms showed no development (vv 4–6); his condition was diagnosed as an eruption (Heb *mispahat*). *Mispahat* appears to be a general term for the slight pustulation occurring in many of the dermatoses.

Another nonmalignant form of *šāra-aṭ* covered the person from head to foot (13:13). This condition could not have been Hansen's disease, which seldom covers the entire body and never makes the skin white. The condition would probably have been psoriasis, in which round reddish patches covered with whitish scales erupt on the scalp, elbows, knees, and back. This common affliction manifests itself in several forms and is sometimes extremely resistant to treatment. Even more probably the sufferer was the victim of vitiligo (acquired leucoderma), a condition marked by white patches on the skin characterized by deficiency of pigment. The body chemistry involved has not yet been explained satisfactorily, but the affliction, like psoriasis, is neither infectious nor harmful.

If, however, the Hebrew sufferer had *bāsār hay* (presumably to be translated "raw flesh"), then the condition would no longer have been thought benign (13:14). Apparently ulceration was occurring, as in developed cases of nodular leprosy. If the ulceration or inflammation was local and transitory, the sufferer could be pronounced free of *šāra-aṭ* and therefore would be ceremonially clean again. The extent of cuticular penetration governed the seriousness of the condition, as though the developing pathology was being viewed from inside rather than from outside the skin. This perspective would help explain the decision that any pale or reddish swelling beneath the skin was malignant. The RV translation "deeper than the skin" may thus indicate cutaneous nodules that were about to erupt and form the fetid sores seen in modern lepromatous leprosy. Persistently bright-pink patches of skin (Heb

baheret) were a symptom of leprosy; they are sometimes seen on modern lepers.

If the site of a previous staphylococcal infection was ulcerated or inflamed (13:18f), the symptoms of leucotrichia, cuticular penetration, and the spread of infection determined the seriousness of the condition. The swelling in question (Heb *šehin*; RSV "boil"; NEB "fester") is of uncertain nature, but it could have been a furuncle, a carbuncle, an ulcer, a keloid, or erysipelas on the site of a boil.

The mention of a burn on the skin (13:24–28) is interesting in view of the medical contention that anesthetic patches are not recorded in this chapter. Burns occur commonly among lepers when cutaneous nerve endings have been made insensitive by the disease. Infection resulting in pus formation or ulcers can have serious consequences if left untreated. Verses 24–28 seem to refer to infection of a burn, perhaps sustained because of the occurrence of maculo-anesthetic leprosy; the condition was pronounced malignant if the reddish-white area had spread and the local hair had changed color.

The seriousness of a disease of the scalp or beard (Heb *neteq*; Gk *thraúsma*) was governed by the degree of skin penetration as well as by the amount of hair lost and a change in hair color from dark to coppery (RSV "yellow," 13:29–37). These conditions, incidentally, are seen periodically in modern lepers and are attributed by some medical authorities to vitamin or protein deficiency. The condition in vv 29–37, however, seems to be ringworm. This fungus attacks various areas of the skin and is extremely irritant in nature. It can be contracted from cattle. Hair loss accompanied by a pinkish disease spot indicates chronic leprosy, however.

Dull white spots on the body (13:38f) were not regarded as malignant; eruption (Heb *bōhaq*; Gk *alphós*) was probably vitiligo. In a well-developed case of vitiligo the skin exhibits complete loss of pigment, in contrast to leprosy, the lesions of which are never white.

Leviticus 13:47–59 treats “leprous diseases” in cloth and leather garments. The expression “warp or woof” probably refers to the woven or fabricated material as a whole, which was judged diseased if it appeared greenish or reddish. Fungi, mildew, iron mold, or dampness could be the responsible or facilitating agents. Even buildings could be affected by “leprosy” (14:34–53), which was apparently dry rot or mineral efflorescence affecting stone walls.

The diagnostic principles in Leviticus were deemed sufficient both to establish the nature of the various types of *šāra-at* and to provide for malignant cases. Such sufficiency was very important, if only because the malignant *šāra-at* resembled other dermatoses in so many respects, especially in the initial stages of the ailment, just as Hansen’s disease does today. Modern clinicians have similarly established cardinal signs of leprosy, namely, localized hypopigmented patches, loss of sensations particularly of temperature or touch, and the presence of *M. leprae* bacilli taken from skin lesions. If a person has more than one of these signs, he or she is deemed to be a leper. Other experts reduce these signs to two, namely, loss or impairment of cutaneous sensation regardless of the presence or absence of a skin patch, and the thickening of nerves. These basic signs indicate the two principal types of leprosy — lepromatous and nonlepromatous, the latter including tuberculoid, maculo-anesthetic, and polyneuritic varieties. In addition, an intermediate leprosy group accommodates borderline and indeterminate cases.

The prodromal symptoms include vague pains in limbs and joints, with intermittent fever. The incubation period can vary between a few months and thirty years, according to some leprologists, but when the eruptive stage occurs the disease begins to assume its special character. In the severe form, lepromatous leprosy, a hypopigmented patch of skin or numbness of skin occur first, although ulcers, nasal blockage, and other symptoms may anticipate the morbid skin changes.

Lepromatous (nodular) leprosy is the most severe form, with the nodules occurring in the

skin, mucous membranes, and perhaps subcutaneous tissues. Sometimes the nodules ulcerate and discharge bacilli in large quantities. Many of the peripheral nerves are affected, as are internal organs such as the spleen, liver, lymph nodes, and adrenal glands. Lesions often occur in the nasal mucosa, the larynx, and the eyes. In diffusely infiltrated lepromatous leprosy the skin of almost the entire body may thicken and redden; some hair loss commonly occurs, too. The hypopigmented lesions of macular lepromatous leprosy have smooth, reddish surfaces with little loss of sensation and poorly defined margins. By comparison, nonlepromatous leprosy is milder in character. Tuberculoid leprosy has few lesions, which may be hypopigmented or erythematous, with dry, rough surfaces generally occurring. The lesions often affect peripheral nerves, causing a loss of tactile sensation except occasionally on facial patches. Like sufferers from tuberculoid leprosy, maculo-anesthetic patients are normally noninfective but exhibit hypopigmented skin lesions that are more or less insensitive to touch. Polyneuritic leprosy only involves peripheral nerves, which thicken and sometimes necrose when nodules form and become abscesses. Frequently in advanced stages motor paralysis occurs.

The fourteen-day quarantine for suspected malignant *šāra-at* has been quite correctly regarded as much too short for clinical leprosy to develop. But it would have allowed certain differential diagnoses, such as scabies or ringworm, to be made. Thus the quarantine would have helped to safeguard the interests of priests and patients alike, since the diagnosis of leprosy even today can be difficult in the early stages of the disease. No doubt ancient lepers, like many of their modern counterparts, usually concealed themselves when they suspected their illness. They probably would have sought a diagnosis only when the symptoms were already well advanced; note that in Lev. 13:2 the patient, his friends, or his relatives seem already to have made a tentative diagnosis. The abysmal terror associated with leprosy from

ancient times was an Eastern rather than a Western phenomenon; the modern reductionists who fail to find any connection between Hansen's disease and the malign condition of Lev. 13–14 have been unable to suggest any substitute ailment that would have inspired such abject dread.

IV. Treatment

In contrast to modern practice, no herbal remedies or therapeutic measures were prescribed by the Hebrew priest-physicians. Instead, the person diagnosed as having malignant *šāra·at* was banished from society (Lev. 13:45f) as a hygienic precaution. He had to proclaim by his appearance and actions his social and religious uncleanness; thus he was prevented from returning and communicating the infection to members of what was meant to be a holy community. There is no record from the ancient Near East of any effort to determine whether leprosy was communicable.

Only if divine healing occurred (cf. Nu. 12:9–15) could the sufferer apply to the priest for a medical discharge. When his healing had been established, he still had to satisfy certain social and religious requirements to be pronounced clean. An appropriate ritual was provided (14:10–32); the elaborate detail suggests that it was indeed used on occasion.

It must be noted that concepts of cleanness or uncleanness have no real bearing upon the meaning, etiology, or pathology of the term *šāra·at*. The covenant community of Israel was essentially a religious one (Ex. 19:6), and any form of uncleanness or defilement, including that of malignant *šāra·at*, was expressly prohibited. Accordingly, specific cleansing and purifying procedures were followed for mildewed or rotting garments (Lev. 13:47–58) and for buildings similarly affected (14:33–53). These rituals were mandatory when prescribed by the priests, because they carried the full sanction of the law (14:54–57).

Although the leper was regarded under the law as ceremonially unclean, in Scripture leprosy was never considered a sin. To that extent

leprosy was merely one of a class of conditions that rendered a person ritually unclean, the main differences being the social abhorrence of the condition and its duration. As with all other forms of healing, the leper's restoration to health was regarded in Scripture as a token of God's grace, and thus the concept of spontaneous remission independent of divine activity had no place in biblical thought.

V. In the Old Testament

The affliction that God imposed upon Moses as a sign (Ex. 4:6) was evidently not chronic *šāra·at*, which, as has been noted, is never white. It may have been leucoderma or psoriasis and was possibly the same affliction as Miriam's (Nu. 12:9–16). In both texts the gloss "white as snow" (Heb *kaššāleg*, lit "like snow") differentiates this *šāra·at* from the chronic form. Naaman (2 K. 5) also does not seem to have been afflicted with Hansen's disease, since he lived and worked among his own people. After Naaman's healing the affliction was transferred to Gehazi (vv 19–27), a gloss again occurs in the Hebrew text to show that the disease was not Hansen's disease, but perhaps scabies or vitiligo (leucoderma). In the early stages of the latter hypopigmented patches of skin develop and can easily be mistaken for lepromatous leprosy, particularly if the observer has no desire for close contact with the sufferer.

The four leprous men at the gate of Samaria most probably constituted a small "leper colony" living together for mutual support (2 K. 7:3–10); there seems no reason for doubting that they had Hansen's disease. Uzziah (2 Ch. 26:19–21) was "smitten" (Heb *nāga·*; the related noun *nega·* is sometimes used synonymously with *šāra·at*) with an ailment that the priests judged to be leprosy, and accordingly he remained in isolation until his death. Browne (p. 13) dismissed the suggestion that Uzziah had sudden hyperemia in a leprous lesion of the forehead that was otherwise inconspicuous. The perpetual quarantine strongly implies chronic *šāra·at*.

Ṣāra-at could also be invoked as a curse upon someone (cf. 2 S. 3:28f).

VI. In the New Testament

Although medical and other writers have doubted that OT references to *ṣāra-at* ever indicate Hansen's disease, it is clear that in Palestine during the NT period clinical leprosy was a reality. The Israelite priests still used the diagnostic criteria of Leviticus (Mt. 8:1–4; Mk. 1:40–44; etc.), and thus “cleansing” is often mentioned in connection with healings recorded in the Gospels. The Gospels' use of “leper” and “leprosy” seems less technical than that of the law, but there is little doubt even from the scanty NT descriptions of the personal and social plight of the sufferers that they were predominantly victims of Hansen's disease.

Jesus and His disciples healed persons with leprosy, but the symptoms associated with that disease are mentioned only in Luke. On their mission of witness the Twelve (cf. Mt. 10:1, 8) were to anticipate the priesthood of all believers by cleansing lepers. The account of the ten lepers (Lk. 17:11–19) uses “cleanse” and “heal” interchangeably, and the believing Samaritan appears as much under the covenant of divine grace as his Jewish companions were. This coterie was most probably a small colony of people suffering from Hansen's disease; doubtless several such groups were scattered about Palestine in NT times. The leper of Lk. 5:12–15 has been considered a victim of a dermatosis other than Hansen's disease, possibly vitiligo, but the description “full of leprosy” (Gk *plērēs lépras*) seems instead to indicate a chronic condition, quite possibly clinical leprosy. Simon the leper (Mt. 26:6 par Mk. 14:3) perhaps had only vitiligo or patches of hypopigmented macules, since he was in close contact with society.

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