Eye of the Beholder: Ophthalmic Illness in Talmudic Literature

Elan Rosenblat

It is difficult to ascertain the medical knowledge that the authors of the Talmud possessed. Medical topics were generally discussed in reference to ethical or judicial matters without further elaboration on pathophysiology. Using the sparse references available, this paper will give a brief insight into medicine during Talmudic times.

The eye is used in many different contexts in the Biblical and rabbinic literature. It is used metaphorically in reference to one's general appearance ("eye of the earth"), positive things ("good eye"), and negative things ("evil eye") (Exodus 10:5, Avot 2:9, Berakhot 20a). Talmudic authorities refer to the eye as a well or spring and, based on its production of tears, felt it was the water supply of the human body. For example, in discussing the reason for the flood, Ray Jose said, "The generation of the flood became arrogant only as result of the eyeball, which resembles water" (Sanhedrin 108a). Furthermore, the word for "eye" in Hebrew, ayin, is derived from the word ain, which is defined as "spring" (Genesis 16:7, Sanhedrin 108). Based on the belief that the eye was like a spring, the mechanism by which brain injury was thought to cause blindness was believed to be overflow of fluid from the brain to the eye. This corresponds to the Hippocratic theory that all diseases are related to the balance of humors or fluids (Gordon 758).

TALMUDIC PERCEPTION OF ANATOMY

The Talmudic knowledge of anatomy was derived mainly from dissection of animal eyes, because many Jewish laws require examination of animals after slaughtering (Mansour). Their beliefs regarding the anatomy of the eye included that it was an organ embedded in fat and protected by the skull and eyelashes, and that it was made up of seven layers which translate into the modern-day ocular conjunctiva, sclera, cornea, choroid, retina, iris, and lenticular capsule (Gordon 760). Another sophisticated belief in comparison with Hippocratic medicine involved the relationship between the eye and the heart, as explained in the Zohar: "In the interior of the eye are found many small nerves and blood vessels. The center pillar produces sight, one branch goes up to the top of the head, and another branch terminates at the heart" (Gordon 762). The idea that the eye was connected to the heart sprouted the belief that major diseases have ocular manifestations. Interestingly, the letter ayin, which is also the Hebrew name for "eye," pictorially demonstrates the path of the optic nerve (see Figures 1 and 2).



Figure 1. The Hebrew letter *ayin*.

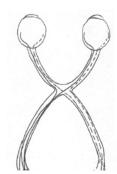


Figure 2. The path of the optic nerve.

PATHOPHYSIOLOGY OF OCULAR DISEASE

The rabbis of the Talmud gave various possible causes for eye disease. In tractate Pesachim the rabbis discuss the influence of food on health. There it is taught that Babylonian *kutach* (a dip composed of sour milk, moldy bread crumbs, and salt) blinds the eyes, coarse bread, fresh beer, and raw vegetables remove one five-hundredth of a person's eyesight, while refined bread, fatty meat, and old wine illuminate the eves (Pesachim 42a) In a separate tractate Rabbi Yohanan said that "[excessive] walking is harmful to the eyes" (Kethuboth 111a). This thought is reiterated in tractate Berakoth. where an unnamed master scholar is quoted as saying, "Long strides diminish a man's eyesight by a five-hundredth part. What is the remedy? He can restore it by [drinking] the sanctification wine of Sabbath eve" (Berakoth 43b). In tractate Nedarim, R. Johanan ben Dahabai said that children are born blind "because they look at 'that place," referring to a woman's genitals (Nedarim 20a). Another prominent belief was that smoke was an ocular irritant, from the verse "as vinegar to the teeth, smoke to the eyes" (Proverbs 10:26). Some authorities felt that the substance of tears influenced the health of the eyes. R. Eleazar said: "A limit has been set for [the tears of] the eye. [There are three kinds of tears which are beneficial;] tears caused by a drug, mustard, and collyrium, but the tears caused by laughter are best of all. There are three kinds of tears which are harmful: tears caused by smoke, weeping through [grief, and straining in] a privy, but [tears which result from the death] of a grown-up child are worst of all" (Lamentations Rabbah 2:15). Displaying an advanced understanding of genetics, the Talmud discusses the offspring of a blind man: "It is obvious that the seed is mixed up, for otherwise the blind should produce a blind offspring" (Hullin 69a). The importance of cleanliness was a relatively progressive preventative measure used by Jews in Talmudic times. Poor hygiene was felt to be detrimental to vision, as seen in Tractate Sabbath: "If the hand [be put] to the eye, let it be cut off" (Sabbath 108b). In tractate Nedarim, Ray Jose quotes Samuel as saying that "scabs of the head [caused by not washing clothing] lead to blindness." Based on this quote, Rav Jose felt that laundering was even more important for one's health than bathing. Prenatal care was also thought to be important for eye health, as Rav Ashi is quoted in reference to a pregnant woman as saying, "One who eats cress will have bleareyed children. One who eats fish brine will have children with blinking eyes. . . . One who eats eggs will have children with big eyes" (Ketuboth 60b–61a).

DESCRIPTIONS OF SPECIFIC OPHTHALMIC DISEASES IN THE TALMUD

The Talmud describes many different eye diseases and gives different explanations for their causes, many of them homiletic in origin. One example is with nystagmus, a condition where one has unintentional horizontal or vertical movement of the eyes. Rabbah explains that the eyes of the residents of Tigris move to and fro because they live in dark homes (Berohoth 59b). Ptosis, drooping of the evelids, may have been seen with Jacob: "Now Israel's eves were heavy with age, he could not see" (Genesis 48:10). The use of the word "heavy" is a reference to the weakness of the upper evelids. The modern understanding of age-related ptosis is involutional deterioration of the levator aponeurosis. Furthermore, it is clear that Jacob's visual capabilities were intact, as a few verses earlier it says, "Then Israel saw Joseph's sons" (Genesis 48:8). Another condition possibly described in the Talmud is presbyopia, an age-related decrease in one's ability to see near objects, as in "The eyes which used to see at distance do not now see even near" (Leviticus Rabbah 18:1).

Another Biblical reference to ocular disease is observed with Leah. In Genesis 29:17 it is written, "Leah's eyes were weak, and Rachel was beautiful in appearance." The Bible's comparison of Leah's eyes to Rachel's beauty alludes to the fact that Leah's condition influenced her appearance. The Talmud elaborates, for Rab states that Leah thought she was to be wed to the wicked Esau,

"and she wept until her eyelashes dropped" (Baba Bathra 123a). Blepharitis, one possible explanation for Leah's malady, is defined as a chronic inflammation of the eyelid margins causing redness, itching, and irritation of the eyes which in some cases can lead to loss of eyelashes. The cause of the disease is still unclear, but it has associations with staphylococcal infection and seborrhea. There are other instances in the Talmud where loss of eyelashes is attributed to excess weeping, such as the story of Rabban Gamliel, who, after hearing that his neighbor had died, "wept in sympathy with her, until his eyelashes fell out" (Sanhedrin 104b). Another reference to eyelashes is seen in the Mishnah, where a priest is disqualified from performing his priestly services if he lost his eyelashes (Bekhoroth 7:3).

PRACTICAL IMPLICATIONS OF OCULAR DISEASE

A relevant example which has practical implications in Jewish law is the different eye diseases which may disqualify a priest from performing the priestly service. This topic is dealt with extensively in the Mishnah Bechoros, which disqualifies one who has no eyebrows, has only one eyebrow, or is a *charum*. The Mishnah explains a charum as follows: "One who can paint both his eyes with one movement. Both his eyes are low, one eye is high, or one eye is low, or he focuses on the lower story and the upper story simultaneously, one who cannot bear the sun, one who has unmatched limbs or watery eyes. One whose eyelashes fell out is unfit for reasons of unsightliness" (Bechoros 7:3). This passage references strabismus, a misalignment of the eyes. This disease entity can be caused by many things, including congenital amyblopia or injury to the nerves involved in ocular movement (cranial nerves three, four, and six). This passage also makes references to the aforementioned blepharitis as a disqualifier. Other examples of eye diseases which disqualify priests are seen in Tractate Megillah: "a man whose eyes run should not lift up his hands . . . a man blind in one eye should not lift up his hands." However, in both of these cases the Talmud maintains that if the community is comfortable with such an individual performing his priestly duties, then he is permitted (Megillah 24b).

Another practical application of eye disease in the Talmud involves disqualifying an animal for sacrifice. The Talmud (Bechoros 38a) disqualifies any animal "if the ris (eyelid) of its eye was punctured, notched, or split, if there is a dak in its eye or an intermingling or a chilazon nachash or a grape-shaped growth." Rashi translates dak as "cloth." He seems to understand dak as a cataract, a clouding of the lens. Rambam defines dak as a spot in the eye. The word dak is used previously in Leviticus in reference to blemishes that disqualify a priest (Leviticus 21:20). A nachash, which is also the Hebrew word for "snake," is thought to be a pterygium, a benign growth which creeps (like a snake) onto the cornea (Mansour). An "intermingling" is defined by the Talmud as "something that mixes the color of the eyes" (Bechoros 38b). This condition is now described as a coloboma, which is an iris sector defect caused by insufficient closure of the embryonic fissure. The following Mishnah continues with the topic of eye blemishes, discussing "white flecks or water in the eye." Both of these conditions lead to complete blindness and may be another example of cataracts.

The Talmud's understanding of ocular disease still has halachic implications today. In tractate Abodah Zarah, Mar Samuel is quoted as saying, "If one's eye gets out of order, it is permissible to paint it [treat it medically] on the Sabbath, the reason being because the eyesight is connected with the mental faculties." Rab Judah follows by saying that in any case of discharge, pricking, congestion, watering, inflammation, or the initial stages of an eye illness, one may violate the Sabbath in order to treat the eye (Abodah Zarah 28b). It is clear from these two passages that the Talmud felt that almost any ocular symptom would be considered a serious medical condition which warrants desecration of the Sabbath. Interestingly, some benign disease entities, such as conjunctivitis (bacterial infection of the eye), which ordinarily would not warrant desecration of the Sabbath from a medical standpoint, meet the criteria as set by the Talmud to allow desecration of the Sabbath in their treatment.

This paper has considered a few of the interesting examples where the Talmud discusses ophthalmic disease. The information presented is only a limited sample of the medical topics discussed in the Talmud. When analyzing the Talmud in a scientific light, it is important to reiterate that the descriptions of ocular disease occur in both practical and homiletic matters and may not accurately reflect the author's medical knowledge.

REFERENCES

- Freedman, H., and Simon, M. *Midrash Rabbah*. London: Soncino Press, 1939.
- Gordon, Benjamin L. "Ophthalmology in the Bible and in the Talmud." *Archives of Ophthalmology* 9 (1933), 751–788.
- Mansour, Ahmad, et al. "The Eye in the Old Testament and Talmud." *Survey of Ophthalmology* 49 (2004), 446–453.
- Nashim, S. *The Babylonian Talmud*. Translated by Rabbi Dr. I. Epstein. London: Soncino Press, 1936.
- Steinberg, Avraham. *Encyclopedia of Jewish Medical Ethics*. Jerusalem: Feldheim, 2003, vol. 2, pp. 404–407.