Bloodletting: A Timeless Practice

By Yael Sterental

Since ancient times, bloodletting has been the panacea to cure and to avert nearly all illnesses. A similar solution to removing unwanted blood in the body is the use of medicinal leeches. Both medical processes were widely accepted during Talmudic times to prevent illnesses and to treat disease [1, 2].

The Talmud states, “For the life of the flesh is in the blood, for it is the life of all flesh” (Vayikra 17:11). The blood circulates in the arteries and veins delivering oxygen and other essential elements to the organism, making it a crucial component in our body. Blood consists of four constituents: (1) liquid plasma, which contains water, electrolytes, nutrients, and waste products, (2) white blood corpuscles, which defend the body from infections and immunize the body from foreign elements, (3) platelets, cell fragments that accelerate the clotting of blood to avoid hemorrhage, and (4) red blood cells (erythrocytes), which deliver oxygen to the body and account for its red color. The Hebrew word “dam” (blood) is derived from the word, “adam,” which is translated as red [3].

All of these constituents function together to preserve and protect the organism by transporting nutrients, maintaining homeostasis among organs of the body, and responding to detrimental processes in the body such as fever, internal hemorrhaging, and even the common cold.

The act of bloodletting is to withdraw blood from an ill patient for the purpose of removing the illness or maintaining a proper physiologic balance of blood within the body. The bloodletter, now more commonly known as a phlebotomist, was not a physician but was an expert in bloodletting. It was an obligation for a city to have a bloodletter dwelling in its town, as without a bloodletter, a rabbinic scholar would not recognize it as a residence [1].

Bloodletting was done by making a slit through the veins with an instrument described by the Talmud as a “kasula,” a lancet or a surgical knife. The Rambam, a physician, philosopher, Talmudist and Halachist during the Middle Ages, considered venesection essential but hazardous and therefore he established rules for pre- and post-bloodletting. Before the bloodletter extracted blood, the patient was examined for facial appearance and was required to be between the ages of 14 to 70 [1]. The bracha, “May it be your will Hashem my God, that this business be healing for me, for you are a compassionate healer” (Shulchan Aruch; Orach Chaim 230:4) was recited by the bloodletter prior to the act. There are numerous Talmudic statements regarding dietary restrictions one was recommended to obey. The consumption of vinegar and small fish, as well as cress, was considered dangerous (Abodab Zara 29a). There are dietary restrictions to be followed after bloodletting as well. It was suggested that the patient eat a light meal post-bloodletting to get the proper nourishment. According to Rav, red meat, red wine, and a blood-rich spleen were recommended as food. “One who was bloodlet should not eat milk, cheese, or onions since they are too irritating for the stomach” [1].

The time and day was also an important factor for bloodletting. It is stated: “bloodletting was not done on a cloudy day and on days when certain wind directions prevail, which are dangerous for bloodletting” (Shabbat 129b; Yehanut 72a). The correct days for bloodletting were Sundays, Wednesdays, or Fridays (Shabbat 129b). It was prohibited on erev chag, Shabbat and chagim. It was permitted to be bloodlet erev Shabbat but not erev chag because the patient was required to celebrate the festivities of the chag and would not have the proper amount of energy if he/she was bloodlet before chag. However, just like on Shabbat, it was permissible if the patient was seriously ill, and thus would fall under a life-threatening situation, which overrides the laws of Shabbat (Mishna Yoma 8:6).

Further prohibitions for after bloodletting included any forceful activities, particularly exercising, travelling and cohabitation (Gittin 70a). Rabbi Shimon bar Yochai said that one may not have intercourse after bloodletting as the result would be children born cachectic (with a wasting syndrome); and if both man and wife had been bloodlet and performed intercourse, their children would suffer from leprosy.

The blood initially extracted from the body by bloodletting is unlike subsequent blood. Depending upon the illness, the extracted blood is significantly distinguishable from healthy blood. However, it is not distinguishable to the untrained eye, only the bloodletter would recognize the differences in the veneseected blood (Niddah 20a). Bloodletting came with severe side effects, such as muscle spasms, insomnia, dyspnea, anxiety, diarrhea, or colitis. Venesection was known to be harmful if performed excessively but useful if performed in an adequate amount. The Talmudic chacham-physician Mar Samuel recommended that blood should be let at 30-day intervals [1]. The Talmud also stated that the minimum amount of blood necessary to sustain human life is one-quarter log (Shabbat 31b). Therefore, it is considered dangerous to bleed down to this limit because then even a minor stimulus such as a chill, which ordinarily is not harmful, might bring the person’s life to an end (Shabbat 129a). In modern day, bloodletting has limited scientific merit. A modern disease for which bloodletting can be utilized is polycythemia vera - an excess of red blood cells [3].

A similar solution to modern day illness is the use of medicinal leeches. The leech is a free-living worm in fresh water. It feeds on the blood of a vertebrate and can ingest five times its body weight in blood in 30 minutes. It excretes the majority of the water ingested with the blood and stores the...
red blood cells as nutrients. The Hebrew word for leech is aluка, a parasitic worm, which lives in rivers and sucks blood from an animal until its whole body is filled with blood (Mishlei 30:15). The Talmudic interpretation for the word leech is nimu, literally a water leech [2]. The Talmud warned against drinking water directly from rivers and pools since the person may ingest a leech (Avodab Zarab 12b). Leeches were medically recognized in America during the 18th century when used on President George Washington just before his death [6]. Subsequently, however, physicians questioned the medicinal efficacy of leeches and usage dropped at the end of the 19th century. Since then, usage of medicinal leeches has resurfaced and it is a method that is currently being used [4]. As with bloodletting, the application of medicinal leeches can be life threatening. The Shulchan Aruch, written by Rav Yosef Karo in the 1560's is a compilation of all the Jewish balachot. It states that swallowing a leech may lead to an internal wound. The Rambam recommended that before drinking water at night, one should strain it to avoid the risk of swallowing a leech (Mishneh Torah, Berachot 11:4).

The Talmud was a proponent of the practice of medicinal leeches and suggested they be used to treat a swollen spleen (Gittin 69b). The Talmud suggested the remedy is to take seven water leeches and drink two or three with wine every day. There are different ways to apply the leech. While in ancient times it was recommended to swallow it, today, physicians recommend the patient apply the leech on an external wound. Some physicians cut the leeches in half, causing them to regenerate and suck blood for a longer period of time [2].

The central concern of the Talmudic Rabbeim of the Middle Ages was the practice of using medicinal leeches on Shabbat when there was no medical rationale for their usage. Bloodletting was considered wounding the person, which is not a productive action, thereby making it a prohibition on Shabbat. Rabbi Yaakov Yitzchak Weiss, a Talmudic scholar, permitted its use on Shabbat for medicinal purpose only [2]. Most Talmudic Rabbeim disagreed unless a patient’s condition is life threatening.

In more recent times, leeches are used for various procedures: they reduce venous congestion or edema in individual patients with occipital hematoma, periorbital edema, severe postoperative macroglossia, purpura fulminans, and thumb paronychia. These are syndromes that build up excess fluid around an affected area, which can cause venous congestion and vascular collapse. Arthritis has recently been treated by leech application to the knee [2]. The most common current use of medicinal leeches is in plastic surgery, to rescue skin flaps compromised by venous congestion after surgery. With the correct use of medicinal leeches, the process can be quite successful. Physician Ronald M. Friedman, a plastic surgeon working at the Texas Health Presbyterian Hospital in Plano, Texas stated, “Don’t waste time. Despite our advanced surgical techniques and therapies, there’s still nothing better than leeches to solve the problem of venous congestion. I have a lot of respect for the little guys” [5].

The use of both bloodletting and medicinal leeching were widely used in ancient times in the treatment of various ailments and diseases. The Talmud recognizes the value of both practices but provides strict guidelines for their use. While bloodletting has not been as well received by modern medicine, it led to the discovery of the field of hematology. Medicinal leeching, however, still remains popular today for the treatment of excess fluid.

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