

# THE HISTORY AND TRADITIONAL TREATMENT OF RABIES IN ETHIOPIA

by

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HYDROPHOBIA, though not excessively prevalent, was fairly common in Ethiopia in former days, and on at least one known occasion reached an epidemic proportion. Notwithstanding the inevitable superstitions and misconceptions, the disease, its method of contagion and incubation period were fairly well known, and traditional practitioners employed a wide variety of supposed cures, some of which are particularly characteristic of old-time Ethiopian medicine, and, in several cases being identifiable over a span of considerably over a century, illustrate the long-established character of the traditional pharmacopoeia.<sup>1</sup>

Early nineteenth-century travellers, the first to discuss the incidence of rabies, are by no means unanimous in their assessment, but tend to suggest that it was fairly widespread. Thus in the 1830s the German explorer Eduard Rüppell, who reports seeing a mad dog at Adowa, goes on to declare that rabies was 'by no means uncommon'<sup>2</sup> while the French traveller, Rochet d'Héricourt a decade or so later told of an apparently rabitic dog which bit three other dogs and a soldier at Debra Tabor.<sup>3</sup> At about the same time the careful French investigator, Antoine d'Abbadie, noted that 'hydrophobia is not rare', and mentioned in passing that a rabitic dog had attacked two of his brother's servants, one of whom died, and quotes the case of another dog who bit four persons.<sup>4</sup> The Frenchman's belief was that the disease was more widespread than in other Middle Eastern countries because Ethiopia's cool climate prevented people from sweating, and sweat, he argued, tended to disinfect the skin in case of bites by rabitic animals.<sup>5</sup>

Early in the second half of the century a French medical observer, Alfred Courbon, declared that rabies was 'very rare',<sup>6</sup> while the British envoy, Walter Plowden, observed that the disease was 'not very common in Abyssinia', though he adds that it was 'more prevalent in Gojam than elsewhere'.<sup>7</sup> A generation or so later, in the 1880s, the Italian geographer, Antonio Cecchi, likewise stated that hydrophobia was 'not serious in Abyssinia, at least in Shoa',<sup>8</sup> while Nicholas Parisi, a Greek doctor in Tigre, agreed at about the same time that rabies was 'rare among the Abyssinians'.<sup>9</sup> The French trader, Leon Chefneux, who off and on had spent some thirty years in the country, was similarly quoted early in the twentieth century as declaring that he had never seen anyone dying from the easily-recognizable symptoms of the disease,<sup>10</sup> though Dr. Pellerin, the director of Addis Ababa's first veterinary institute, reported at about the same time on the case of a dog who displayed typical characteristics of hydrophobia.<sup>11</sup>

The first rabies epidemic of which we have record occurred in Addis Ababa in August 1903, and is reported by Lincoln De Castro, a physician at the Italian legation, who says that the outbreak lasted for 'a few months and then disappeared'. He adds that this was the only such occurrence during his ten-year residence in the Ethiopian

### *The History and Traditional Treatment of Rabies in Ethiopia*

capital from 1901 to 1911, that hydrophobia was not seen every year, and was 'completely absent for long periods'.<sup>12</sup> Dr. P. Mérab, a Georgian physician resident in Addis Ababa from 1908 to 1913, likewise expressed his doubts as to the frequency of rabies, and argued that this was not surprising as the local dogs were of the same race as those of Constantinople which, he declared, on the basis of personal experience, to be seldom affected by hydrophobia.<sup>13</sup>

Rabies was nevertheless popularly considered so important by the Ethiopians that there was at the palace, as Mérab reports, a traditional practitioner widely reputed as having an 'imperial cure' for this disease. Anti-rabitic treatment was given free of charge to anyone in need, and was supposed to be one hundred per cent successful. The Georgian physician, for his part, thought this not surprising, for he declares that most of the patients, at least one of whom came to the palace every week, had never really been exposed to a risk of rabies, and had usually been no more than touched by a rabitic animal or bitten by a healthy dog. He had accordingly once told a male patient as a joke that it was not the bite of a four-footed animal that was dangerous, but the bite of one with two legs!<sup>14</sup>

Trouble with dogs was, however, reported in several parts of the country. The situation in Gondar was summed up early in the twentieth century by an Italian doctor, Amleto Bevilacqua, who resided in that city from 1911 to 1912. He states that though dog bites were 'most common', and reached a 'truly extraordinary number', rabies 'did not seem to be known'.<sup>15</sup> A couple of decades later a learned Ethiopian, Saw Aganyahu, drawing up a list of eighty-nine traditional practitioners in the city for the French Mission Dakar-Djibouti, in 1932, recently published by the French Ethiopicist Maxime Rodinson, nevertheless reported that one of them called Warqu specialized in curing persons bitten by mad dogs, but took no recompense, for he said: 'It is for my soul'.<sup>16</sup>

Elsewhere in the country there were occasional reports of somewhat serious outbreaks of rabies. Thus Fan C. Dunckley, an Englishwoman resident in Addis Ababa, writing apparently of the later 1920s, tells of three different incidents which occurred one year immediately after the rains. In the first a dog kept as a pet by some farmers outside the capital developed the disease and bit three people; in the second case she and her husband were attacked in Addis Ababa by a pi-dog, but managed to avoid being bitten; in the third a Greek woman in the interior was bitten by her pet, and, being twenty-four days' journey from the capital, was unable to obtain treatment in time, and as a result 'died a terrible death'.<sup>17</sup> Discussing this crop of incidents the British writer notes: 'rabies in Addis Ababa was far more frequent after the rains than at any other time of the year. Various theories have been put forward for this—one being that the dogs drank from the puddles in the road, paths, etc., and that a germ got into the water and the dog drew in the germ while drinking'.<sup>18</sup>

Hydrophobia was also reported in the nearby colony of Eritrea where the Italian Resident at Adi Quala told a British journalist, Muriel Currey, that the area suffered 'a great deal' from rabies which was 'so prevalent amongst the wild animals'.<sup>19</sup>

Later writers draw a similar picture. Thus an article in *Gli Annali dell' Africa Italiana* noted in 1940, towards the end of the fascist period, that rabies was 'very diffused, especially in Ethiopia, among carnivores, be they wild or domesticated', while Arne

Barkhuus, an early post-war member of a United States Technical Project mission, declared in 1947 that 'the number of rabitic dogs in Ethiopia' was 'very large', though 'little' was known as to the number of people actually bitten,<sup>20</sup> a modest observation which underlines the essentially slender evidence available for any discussion as to the extent of rabies in former times.

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The significance of the disease is, however, evident from the continued existence of traditional specialists in rabies, evidence from one of whom, Zawge Tekle Mariam of Kasima near Debre Berhan in Shoa, who claims to receive as much as thirty to forty Ethiopian dollars for a course of treatment or five dollars from poorer patients, and to treat a minimum of six cases a month in Addis Ababa, will be cited in this paper.<sup>21</sup>

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The Ethiopians of former times, though at times naive and superstitious in medical matters, were traditionally well aware that the bite of a mad dog was often fatal, and shared the widely-held view that the danger period did not exceed about forty days. A clear understanding of the danger of being bitten by a mad dog is evident in several Ethiopian medical texts, in both Geez and Amharic, dating from the eighteenth and nineteenth centuries. Such texts, which have recently been published by the Polish Ethiopicist, Stefan Strelcyn, recognize that the bite of a mad dog was a very different matter from any ordinary bite by a dog, horse, donkey, mule or other animal. The significance attached to mad dog bites is further evident from the fact that these documents go on immediately to discuss two other serious matters: snake-bites and wounds inflicted by poisoned arrows. A distinction is, however, drawn between the bite of a mad dog and these other wounds, for the said medical texts declare that in the former case 'one does not take out the blood', whereas in the latter case the wound had to be quickly cut to remove blood, and with it the poison.<sup>22</sup> Nineteenth-century travellers, such as d'Abbadie and Cecchi, confirm that the Ethiopians were fully aware that the bite of a mad dog was dangerous and required speedy treatment,<sup>23</sup> while De Castro in the twentieth century states that 'the natives say that even the saliva [of a rabic dog], without biting, is fatal'.<sup>24</sup>

Despite such awareness of the causes of the disease Dr. Mérab is of opinion that the traditional diagnosis was often faulty. He claimed that the Ethiopians often confused relatively minor ailments with rabies, particularly in cases where the patient had previously been bitten or had had some contact with a dog. Such confusions, which inevitably invalidate much of the traditional treatment for rabies, were the reason, according to Mérab, for the apparent success of all sorts of traditional cures,<sup>25</sup> a view also expounded more recently by Rodinson.<sup>26</sup>

Ethiopian ideas on the duration of the incubation period for rabies coincided, and may well have been influenced, by those in other countries. Thus a couple of the nineteenth-century medical texts published by Strelcyn state that treatment would be continued for forty days,<sup>27</sup> while d'Abbadie declares that 'the Abyssinians say, like us, that there is no more danger after 40 days', that treatment had to be effected within forty days after a bite, and that 'all fear ceases after 40 days'.<sup>28</sup> These statements are confirmed by Cecchi who noticed several decades later that it was the practice

### *The History and Traditional Treatment of Rabies in Ethiopia*

in Shoa to treat patients within forty days of their being bitten.<sup>29</sup> Zawge Tekle Mariam, a thirty-three-year-old traditional practitioner from Kasima, formerly a weaver, now resident in Addis Ababa and a specialist in rabies, who claims to have learnt his art, as well as church learning, in Begemder, likewise accepts the significance of the forty-day period, and informs the present writer that receiving an initial advance payment at the beginning of his treatment he collects the bulk of his fees after the fortieth day.

Popular Ethiopian ideas on rabies were, however, often somewhat fantastic. Cecchi states that in Shoa, for example, it was widely believed that 'when an unfortunate was bitten by a rabid dog this produced in his belly puppies which grew day by day, and ended by suffocating the patient.' The same observer adds that the patient would be given some herbal medicine as an emetic, and, each time he vomited, there would be a discussion among the persons present as to the part of the canine animal that had been ejected. One person, he says, would claim to recognize a leg, another a shoulder, a third a part of the breast, and the discussion would be halted only when the practitioner gave his own equally naive verdict on the matter.<sup>30</sup>

Such beliefs were widely established, and other variants of them may be discerned. Early in the nineteenth century the French traveller Rochet d'Héricourt, was informed that a rabies victim when properly treated released 'microscopic worms' in the urine,<sup>31</sup> while Dr. Mérab almost a century later reported that it was thought that successful medicine expelled from the urethra certain small white worms, which were held to be the offspring of the mad dog who had bitten the patient.<sup>32</sup> The present-day old-style practitioner Zawge Tekle Mariam fully endorses this view. He states that seven days after being bitten the victim's stool begins to contain dark worms somewhat resembling the leaves of the *abaro*, and that he also vomits up such worms. About twenty days after the biting the worms are supposed more and more to resemble the shape and colour of the dog from which the infection emanated.

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The Ethiopians employed a wide variety of traditional treatment in cases of bites by dogs believed to be rabitic. Though attention was primarily centred on human patients, dogs and other domestic animals were also treated. Many cures were based on the assumed value of purging, ever a major principle in the Ethiopian pharmacopoeia.<sup>33</sup> Thus the Geez and Amharic medical texts published by Strelcyn expressly state that in the case of a bite by a dog, donkey or mule, but above all by a mad dog, the patient had to drink a medicine which would cause the poison 'to go out in the diarrhoea', and adds: 'If one makes it go out quickly the poison does not reach the heart'.<sup>34</sup> Saw Aganyahu in his afore-mentioned early twentieth-century report puts the matter rather differently, and states that the traditional Gondar medicine for rabies aimed at preventing the poison from 'working in the belly',<sup>35</sup> while Alaka, later Grazmach, Gabra Wald, a twentieth-century practitioner from Faras bet Madhane Alem in Gojam, wrote in his notebook of the need to apply special medicines to a rabitic dog bite, 'so that the poison does not go to other parts of the body'.<sup>36</sup>

The importance of purges in old-style rabies treatment is underlined by d'Abbadie, who bluntly declares that 'the Abyssinians and Gallas cure hydrophobia by purgatives',<sup>37</sup> while Rochet d' Héricourt, describes a treatment which resulted in evacuation

of the bowels, release of urine and vomiting.<sup>38</sup> Other treatment, as reported by Cecchi, was based on the use of emetics, and, as he said, were 'perhaps poisonous'.<sup>39</sup>

Treatment, as we shall see, was also sometimes conceived in terms of some kind of inoculation, a principle well known to the Ethiopians who employed it with a fair measure of success as a preventive for smallpox.<sup>40</sup> Careful attention was also paid to the cleaning and disinfection of wounds made by rabid dogs, as well indeed to other wounds, such treatment being recommended for example in the aforementioned Geez-Amharic texts.<sup>41</sup>

Most traditional Ethiopian medicines for rabies came, like the Ethiopian pharmacopoeia as a whole, from the vegetable kingdom.<sup>42</sup> Thus the early nineteenth-century documents published by Strelcyn contain the following medicines for persons bitten by a mad dog:

1. The roots of the *zarch embay* and *meder embay* (types of *Solanum campylacanthum*), *gamaro* (*Capparis tomentosa* or *C. persicifolia*), *changar zabaqel* [?], *tsalanj* (*Achyranthes aspera* or *A. argentea*), *asarat* (*Mandragora officinarum*?), *makan endod* (*Phytolacca dodecandra*), *chaqma* (*Ricinus communis samag*[?]), *amera* [*Lonchocarpus laxiflorus*?], *sera baji*[?], *harag resa*[?] and *yaset qast* (*Asparagus aethiopicus*), the bark of the *mesanna*, *esa zarwe* (*Croton macrostachys*), and the leaves of the *degessa* (*Calpurnia subdecandra*), *lemmech*[?] and *qatenna* (*Verbascum sinaiticum*). The text adds somewhat cryptically that the *dennech zakalb*, or wild potato (*Coleus edulis*), was 'better' than all roots, but 'had to be taken with water'.<sup>43</sup>
2. The wild cucumber *dembushesh* about which the text says that 'when you make him drink it he is cured'.<sup>44</sup>
3. The roots of the *amera*, *esa menah*[?], *esa zarwe*[?], *enzarazay*[?], *asarat* [*Mandragora officinarum*?], and *sara baji*. These roots had to be dried, crushed and mixed with citron water in the case of a human patient, milk in that of a dog, and water in that of any other domestic animal.<sup>45</sup>
4. The leaves of the *zarch embay* (*Solanum campylacanthum*) and *makan endod* (*Phytolacca dodecandra*). The leaves of the former had to be dried and ground into a fine powder and mixed with honey and tasted on the thumb, while the leaves of the latter had to be crushed, and drunk in a small cup of milk.<sup>46</sup>
5. The leaves of the *makan endod* (*Phytolacca dodecandra*) was also taken by itself. One prescription states that the juice of these leaves had to be drunk in small quantity for 40 days, the patient at the same time reciting the religious words of the *Habeka Qeddase*.<sup>47</sup>
6. The roots of the *endahahella* (*Kalanchoe quartiniana*) collected in three different places, *asarat* [*Mandragora officinarum*?], *chefreg* (*Sida ovata*), and *jebarra* (*Tupa rhyнопetalum*, *Tupa schimperi* or *Rhynocopetalum montanum*). These roots, the manuscript claims, had to be boiled for a short time in steer's urine placed in a new clay pot on three stones.<sup>48</sup>
7. The root of the *tacha*[?] mixed with that of the *grar* or acacia (*Acacia abyssinica*), and boiled, the decoction thus made being drunk.<sup>49</sup>
8. The roots of the *ablalit*[?] and the *qabarecho* (*Echinops* sp.) which were to be finely ground and eaten with *enjera*, pancake-like bread.<sup>50</sup>

Other cures based on the vegetable kingdom were mentioned by several nineteenth- and early twentieth-century foreign observers. Rochet d'Héricourt, the first foreign writer to report on such medicines, says that he saw a *cucurbitaceae*, or kind of gourd, used at Debra Tabor. This plant grew in the lowlands, had greenish-yellow fruit three to four centimetres long, leaves separated into five sections, and long winding roots two to three centimetres wide and over a metre long. This root was dried and ground into powder, after which the patient was given twelve to thirteen grains in a small spoon of honey or milk. An hour and a half later, after many evacuations of the bowels, vomitings and the release of urine containing 'microscopic worms', he

*The History and Traditional Treatment of Rabies in Ethiopia*

was given numerous cups of whey, and, when weakened by these evacuations, the gizzard or flesh of a chicken, well peppered, and roasted in butter, which was said to arrest the effects of the medicine.<sup>51</sup> The traveller, who first learnt of this cure from Ras Ali, the ruler of Begemder, says that when a dog at Debra Tabor bit three dogs and a soldier the chief said to him, 'Now you will see the efficacy of the remedy of which I spoke to you'. The chief then had the three dogs separated, and, during a moment when the attacker was calm, ordered that it be made to swallow the powdered root in a spoonful of honey; after the already-described effects, the animal is said to have recovered. Eight days later one of the dogs which had been bitten developed signs of madness, but was allegedly cured in the same manner. On the twelfth day similar symptoms appeared in a second dog, which was likewise treated, and supposedly cured, but the third animal, which for purposes of control was not treated, died of rabies forty-two days after the biting. The soldier, for his part, became ill nine days after being bitten. His head, we are told, was heavy and very hot, and he seemed dull, spoke little, slobbered at the mouth, and became angry when offered a glass of hydromel. On the following day he was given the medicine in a spoonful of milk, to which he reacted in precisely the manner described, and was, it is alleged, quickly cured.<sup>52</sup> The validity of this treatment, it should be added, was later rejected by Courbon who described the assertion that it was infallible as 'entirely false'.<sup>53</sup>

D'Abbadie, who also took considerable interest in the treatment of rabies, was informed at about the same time that the practitioners of Derita, Gojam and the Galla country, each had their own cure.<sup>54</sup> In Derita use was made of a small leaf, found in some plants in the forests, which was placed in fresh milk and thus produced a strong purgative.<sup>55</sup> In Gojam, on the other hand, people preferred to pulverize a root 'not generally known' but he gives no details.<sup>56</sup> In another cure reported by d'Abbadie seven fruits of an unspecified plant would be placed in milk, or, in lieu thereof, beer, and also had a purging effect.<sup>57</sup>

Plowden describes two other cures. In one the leaves of the *keret* (*Osyris abyssinica*) were rubbed on the patient for three days, and 'divers ceremonies performed'. In the other the victim had to eat large quantities of garlic, which, the Englishman was led to believe, was remarkably efficacious, it being indeed reported that a man already raving from the disease had been cured in this manner.<sup>58</sup>

Mérab tells of several other specifics. One consisted of about a handful of the crushed roots of the *amera* (*Lonchocarpus laxi-florus?*), already cited in a nineteenth-century medical text, and of the *wahi*(?) which had to be drunk in *talla* or local beer.<sup>59</sup> In a second cure the patient was supposed to eat a root of the *meder embay* (*Solanum campaylacanthum*), mentioned in several of the medical texts, and a root of the *ayt-joro* (?) each about the size of the thumb, and keep a diet of leavened bread.<sup>60</sup> In a third course of treatment the powder of the *assereb* (?) and that of the *manahe* (?) had to be boiled in *taj*, or mead, with the powdered foot of a crab or lobster; a soup-spoon of the resultant brew had to be taken internally for seven days.<sup>61</sup> A fourth cure, and the one apparently used at Menelik's palace, was made from the roots of the *ahia* (*Salix subserrata* or *S. alba*) which was drunk in water or some other liquid.<sup>62</sup>

An early twentieth-century medical text drawn up by Alaka (later Grazmach)

Gabra Wald also contains a number of specifics for persons bitten by a mad dog. Several of these treatments coincide with those already cited. The cures recommended comprise the following.<sup>63</sup>

1. The roots of the *waynagefi*[?] and *asarkush tabatabkush*[?] [*Cissus adenatha*?] which had to be ground into powder and given to the patient to eat with unleavened bread.
2. A slightly different variation of this prescription said that the patient should drink a decoction made from the root and leaf of the *waynagefi*[?] with a little water. The text went on to recommend how the wound itself should be treated (see below).
3. The *meder embay* (*Solanum campylacanthum*) which had to be eaten with *injera*, or pancake-bread made from black *tef*. (It is probable that the prescription is referring to the root of this plant as recommended in the nineteenth-century texts though this is not explicitly stated.)
4. The roots of the *gotech*[?] They had to be dug up, we are told, by a small boy wearing a silver ring and using a horn-handled knife and an olive stick, and be taken from seven different places on a Friday and Wednesday. The root was to be measured with the digits of his small finger, and pounded on three stones, and given to the patient who had to drink it from a new vessel with the milk of a cow who had the same colour as her calf.
5. The powdered roots of the *meder emboy* and *zarch emboy* (types of *Solanum campylacanthum*) which had to be drunk by human beings and dogs as a preventive for rabies. The roots of both plants, as we have seen, appear as a treatment for rabies in the nineteenth-century texts.
6. In the case of an immature child it was recommended that he be beaten on the back of the neck with a branch of the *daga abalo* [*Terminalia glaucescens* or *Crotalaria lachnocarpoides*?] which was to be broken for the purpose to the length of a cubit and a span, and then used to beat the ground. The document recommended that this procedure be carried out three times, but added the treatment could not be applied in the case of a pregnant woman.

A somewhat different prescription also using the *abalo* (*Terminalia glaucescens* or *Crotalaria lachnocarpoides*?) it is interesting to note, was later collected in Gojam by Alemayehu Mogus, an Ethiopian scholar of the post-war generation. It says that for mad-dog bites the fruit of the *abalo* should be dried, ground, and mixed with the roots of the *meder embay* (*Solanum campylacanthum*), a medicament, as we have seen, often cited in connection with rabies. The mixture was to be taken with honey in the treatment of people, or raw meat in that of dogs.<sup>64</sup>

An informant from Gojam who wishes to remain anonymous says that as a prophylactic for rabies persons were sometimes given a potion consisting of parts of the *keret* (*Osyris abyssinica*), *abish* (*Trigonella foenum-graecum*), and *tid* (*Juniperus procera*) mixed with hyena droppings.

The use of *keret*, it should be noticed, was earlier reported by Plowden.

The treatment given by Zawge Tekle Mariam, is based on a mixture of some nineteen plants, several of which are already mentioned in the Strelcyn and Gabra Wald manuscripts and can therefore be described as widely-used specifics for rabies. Zawge Tekle Mariam's prescription consists of the root of the *alblabit*(?), the root of *dog* (*Ferula communis*), the bark of *besana* (*Croton macrostachys*), the root of the *faras zang* (*Vernonia adoensis*) the root of *shinat* (*Trichelia volkensii*), the root of *aheya joro*(?), the root of *embway* (*Solanum*), the root of *agam* (*Carissa edulis*), the root of *asarkush* (*Cissus adenatha*), the root of *gabarecho* (*Echinops*), the bark of *taferado*(?), the leaves of *haya* (*Salix subserrata*?), the root of *achefa*(?), the sap of *qwolqwol* (*Euphorbia abyssinica*), the root of *shehare*(?) the root of *zarazay*(?), the root of *qatatena* (*Verbascum sinaiticum*), the leaves of *zerat chefar*(?), the root of *esa zawi*(?), and the root of *zarch embway* (*Solanum campylacanthum*). The written

### *The History and Traditional Treatment of Rabies in Ethiopia*

prescription states that the mixture should be drunk in 'a clean house' (see below), with *tala*, or beer, made from barley and black *tef*. The practitioner seems to employ an unusual mode of treatment in that he claims to insist that the patient remain alone in a dark room. The medicine, about three spoonfuls per dose, is given every fifteen days for six months, and is taken in a glass of *ergo*, or yoghurt, or, during fast days, in a glass of *talla* made from barley. Dogs, on the other hand, are given every twenty days for forty days four spoonfuls of the mixture in bread made from black *tef*. Mad dogs, according to the prescription, had to be given to eat lemon rind with unleavened bread made from black *tef*.

Another traditional treatment, reported by Grazmach Asregdaw Borja, and for which I am indebted to Woizerit Tsehay Berhane Sellassie, consists of the leaves of the *esa fares* (*Datura stramonium*). They are crushed, and the resultant juice is given to the patient to drink with the milk of a cow of the same colour as its calf. The antidote for this poison is said to be the liver of a chicken.

Other vegetable cures for hydrophobia are mentioned by foreign scholars of recent times. The Italian botanist Fabrizio Cortesi tells of the use of the root of the *eniderobaia* (*Cucumis ficifolius*),<sup>65</sup> which was also subsequently mentioned by his compatriot Raffaele Cacciapuoti.<sup>66</sup> The latter says that the juice of the crushed leaves of *atafaris* or *mestanager* (*Datura stramonium*) and the *tirufra* (*Datura stramonium*) and the *tirufra* (*Datura metel*) also served as a prophylactic against rabies.<sup>67</sup>

D. Lemordant, a Frenchman some time Chef de Service at the Institut Pasteur d'Ethiopie, mentions the use in rabies treatment of the *amera* and *ahia*,<sup>68</sup> both earlier mentioned by Mérab, as well as the following plants: (1) *Asarkush tabatabkush* (*Cissus adenantha*?), the dried roots of which were mixed with flour.<sup>69</sup> The use of *asarkush tabatabkush* roots, it will be recalled, also figures in one of Alaka Gabra Wald's prescriptions. (2) *Damakase* (*Ocimum menthaefolium* or *O. lamifolium*).<sup>70</sup> (3) *Meserech* (*Clerodendron myricoides*), the sap of which was used in the treatment of rabies.<sup>71</sup>

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Another very different specific, the use of which can be documented for almost a century, was a type of black beetle which is said to have had a purging effect. D'Abbadie in the early nineteenth century states that in Enarya 'they cure the man bitten by a mad dog by making him take a kind of black scarab (*bombi*) which is found in September in the fields of *mashila* (*Sorgum valgare*). The dose consists of 12 scarabs well pulverised and swallowed in water. The patient is strongly purged and almost always cured'.<sup>72</sup> The Frenchman adds that 'this purge is very violent, and I have been assured that it killed a man in Gudru'.<sup>73</sup> In another passage he again refers to a black insect, but quotes a much smaller dosage, declaring that 'on the third day [after being bitten by a rabitic dog] they swallow  $\frac{2}{3}$  of an insect which is found on the leaves of beans. It is black and as large as a bee and has a tail which they pull off . . . Two of these insects make 3 doses. They are pulverised and this medicine is taken in pure honey, fresh cheese, or, according to some, in citron water. If the powder touches the tongue it blisters. This remedy provokes plentiful evacuations of urine and—sometimes for 2 whole days. Afterwards the patient complains of hunger and is cured.'<sup>74</sup>



*Richard Pankhurst*

The black-beetle cure, interestingly enough, is recorded about a century later in an Amharic book of traditional treatment purchased from a *dabtara* or lay cleric, at Entoto by the French Ethiopist Marcel Griaule. This early twentieth-century document declares that a person bitten by a mad dog should swallow a finely-ground *wajbit*, which is described by Griaule as a black coleopteran or beetle often found in potatoes attacked by dampness. The cure being apparently a powerful purge the text declares that its effects were halted by taking *baso*, a gruel made of grilled barley.<sup>75</sup>

Further confirmation for this mode of treatment comes from Alemayehu Mogus who records that it was common practice to administer the *wajimbit* beetle, the head and legs of which would be removed. Persons bitten by a dog suspected of being rabitic were supposed, he says, to eat this insect with honey, while dogs so bitten would take it with milk.

Superstitions of one kind or another played their part in many treatments. Several of the above-mentioned cures, it will have been perceived, contained magical elements, while Dr. Mérab reports that it was often said that some hairs of the rabitic dog should be placed on the wound of his victim.<sup>76</sup> It was also widely believed, according to the same observer, that in the already-mentioned cure based on the *meder embay* the patient was supposed to avoid crossing any river which contained water throughout the year, for it was thought that such waters were inhabited by demons who would destroy the efficacy of the treatment.<sup>77</sup> Zewge Tekle Mariam also states, quite independently, that a patient should not enter a river and, if obliged to cross, should be carried over, and not be allowed to stand on the sand at the water's edge. For good measure, he adds that while under treatment men should have no contact with women, his prescription, as we have seen, making reference to a 'clean house'.

Traditional-style rabies inoculations based on the eating of rabitic material were first reported in the early twentieth century by De Castro who claims to have learnt of this from the Emperor Menelik himself. The Italian states that the Ethiopians would make a rabidic dog bite a cow which would then be slaughtered, the meat being given to eat by the persons who had been bitten. De Castro, who was not impressed by this procedure, comments that it did not prevent the victims succumbing as elsewhere to the terrible disease.<sup>78</sup> A somewhat different treatment was later reported by Lemordant who says that persons bitten by a rabitic dog would sometimes be required to eat the animal's liver with *barbare*, or red pepper (*Capsicum*), while Alice Morton, a present-day anthropologist, reports that when a cow became rabitic at Bistoftu in 1970 the owner refused to have it destroyed, and sold its flesh as a cure and preventive for rabies.<sup>79</sup>

\* \* \*

The cleaning and care of wounds inflicted by dogs, as well as horses, donkeys, mules, monkeys and hyenas, receives considerable attention in the traditional medical texts. Thus the documents edited by Strelcyn specify that the wound should be 'burnt with the boiling oil of *nug*' or Niger oil (*Guizotia abyssinica*), after which a hot poultice had to be applied for three days. It was made of cloth soaked in the yolk and white of an egg beaten up with fresh butter and *nug* oil.<sup>80</sup> Another prescription stated that the wound would heal if covered with salt, honey, or onion and honey, and that

### *The History and Traditional Treatment of Rabies in Ethiopia*

peas mixed up with honey was also good.<sup>81</sup> Still another passage states that two heads of *nech senkwert*, or garlic, should be mixed with nug oil and put on the fire to produce a liquid which had to be placed on the wound,<sup>82</sup> while yet another text declares that in case of a snake or dog bite the wound should be burnt.<sup>83</sup> D'Abbadie, whose informants appear to have been unaware of the latter practices, subsequently expressed surprise that the Ethiopians, though making extensive use of cauterization for other purposes, had 'not dreamt of applying it to bites'.<sup>84</sup>

The prescriptions of Alaka Gabra Wald also recommend how the wounds of rabid dogs should be treated. One prescription says that seed of the *wanza* (*Cordia Africana*) should be removed of their cases, and powdered with the leaf of the *balas* (*Ficus palmata*) and applied to the wound which would 'then be cured'. Another of the Alaka's prescriptions says that a patient made to drink the root and leaf of the *waynageft*(?) as described above, should also have these applied to the wound, with water, salt and garlic, the mixture being tied to the wound 'so that the poison does not go to other parts of the body'.<sup>85</sup>

\* \* \*

Modern-style rabies inoculations gained great popularity in Addis Ababa in the early twentieth century, particularly after the completion of the railway from Jibuti in 1917 opened up relatively-easy access with the outside world. It became the custom at that time, as a contemporary pharmacist, Hakim Zahn, notes, for a person bitten by a rabid dog to resort to the lengthy and costly expedient of taking the train to Jibuti, three days' journey away, sailing up the Red Sea to Egypt, and then receiving the necessary inoculations at Alexandria.<sup>86</sup> Mérab, who also tells of suspected victims of hydrophobia travelling from Addis Ababa to Cairo, says that three or four Europeans felt themselves obliged to do this every year.<sup>87</sup> Rabies serum, according to Barkhuus, was, however, locally produced in Addis Ababa after 1927,<sup>88</sup> and was also manufactured in this period by the Italians in Eritrea.<sup>89</sup> In pre-war Addis Ababa inoculations were mainly given, according to Fan C. Dunkley, by an Armenian veterinary surgeon,<sup>90</sup> but later by other practitioners. During the Italian occupation (1936–1941) fifty to sixty anti-rabies vaccine cures were produced each year,<sup>91</sup> and some 6,000 stray dogs were killed with strychnine in the capital,<sup>92</sup> though Barkhuus reported shortly after Ethiopia's liberation in 1941 that in Addis Ababa approximately one hundred persons received treatment every month for bites from rabid dogs.<sup>93</sup>

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Richard Pankhurst

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*The History and Traditional Treatment of Rabies in Ethiopia*

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