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Human–Hedgehog Relationships in Turkic-Speaking Areas: Folklore, Linguistic Expressions and Medicinal Practices

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Abstract: Hedgehogs play an important cultural role among various peoples in Eurasia. They appear in myths, and are regarded as wise guides, protectors, or magical creatures. Some important biocultural domains where human–hedgehog relationships are particularly visible are food and medicine. Moreover, the animal also appears in metaphors, other linguistic expressions, and storytelling traditions.

Using a wide and varied range of sources, this article analyzes the human–hedgehog relationship among different Turkic peoples. It discusses the different names for hedgehogs in various Turkic languages, the metaphorical use of hedgehogs in plant names, and the animal's presence in riddles, proverbs, and other linguistic expressions.

As exemplified in the article, the hedgehog has played an important role among the Turkic peoples, especially in medicine. The extensive materials in medical manuscripts from Eastern Turkestan are examined in detail. These show that the intestines and other body parts of hedgehogs were used to cure a number of ailments or for diverse non-medical purposes. The article demonstrates that, as with the other Eurasian peoples, the hedgehog can be considered a culturally significant species for the various Turkic peoples.

Keywords: ethnozoology, folk medicine, medical manuscripts, human-animal relations, Turkology

Introduction

Hedgehogs are a peculiar kind of spiny mammal belonging to the subfamily *Erinaceinae*. They are nocturnal and feed on insects, frogs, small rodents, snakes, lizards, and slugs (Aulagnier et al. 2009). They often live close to humans, and people frequently come across them in agricultural landscapes, villages and even larger urban settlements and towns.

The various species are quite similar to one another, and therefore they have rarely been perceived as separate taxa in the folk taxonomies, where the ranges of several hedgehog species overlap. Zoologists currently distinguish between 18 species belonging to five genera, which are distributed in Europe, Asia, and Africa (Hutterer 2005; Global 2023). Their odd appearance and behavior have undoubtedly contributed to their longstanding role in people's imagination and in folk medicine. Already in ancient times, people showed a great interest in hedgehogs, as evidenced by archaeological findings in Central Asia (Taube 2020).

This interest has continued until today. A Swedish missionary source from the early 20th century discussing Eastern Turkestan (Xinjiang) notes that the animal was widely used as medicine. The au-

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thor, David Gustavsson, was clearly inspired by some Eastern Turki text that presents similar information; cf. examples from Prov. 24 in the appendix.

Eye diseases are very widespread in the country, but the cures are also well known. An old proven medicine against blindness in the left eye, and a cure against weak eyes in general, is hedgehog bile. (Gustavsson 1917b: 246, as cited in Hällzon 2022: 315)

The study of cultural and linguistic expressions of human-animal relationships is an essential and growing research area. Within Turkology and Central Asian studies, there is a long tradition of linguistic and folkloristic comparison of mammalian species, especially because zoonyms for specific species of mammals can have fairly wide-ranging distributions that cut across large language areas. Notable studies in this field include those by Bang (1916), Menges (1935), Sinor (1965), Tryjarski (1979), Hauenschild (1997), Frembgen (1998), Parpola & Janhunen (2012) and Meserve (2015).

In this paper we discuss various features of the hedgehog in Turkic folk zoology, especially its use as food and medicine in Central and Southwest Asia, although it is not always easy to distinguish between these two functions.

Apart from the research of ethnographer Erika Taube, who focused on the role of the hedgehog among the Altaic peoples in Asia as well as in their languages and folklore (Taube 1990), there has been no detailed study of the various Turkic peoples' relationship with this animal. However, hedgehogs are mentioned in recent studies on Turkic medical treatises from Central Asia (Károly 2015; Hällzon 2022) and in a study on traditional Uyghur medicine in Khotan (Lapham 2005).

Several linguistic and cultural similarities can be found between Turkic peoples and non-Turkic peoples, such as the Mongols and Iranians. One of the most obvious shared linguistic features is the Mongolic word *jaraya* 'hedgehog', variants of which are found in several Turkic languages (Nugteren 2023; Nugteren & Roos 1996: 59). The exclusive focus on Turkic-speaking areas in this article reflects the authors' linguistic competence and scholarly backgrounds, and does not imply that the various uses discussed here, particularly those related to medicine, are necessarily unique to Turkic-speaking peoples. On the contrary, although our contribution here is primarily based on Turkic source materials, we welcome comments and discussion from scholars working on other languages of Central Asia and beyond, regarding how this peculiar animal has been used, described, named, and understood historically and in the present day.

Methods and sources

Data collection was done through a careful review of relevant literature, in particular travelogues, ethnographic studies, linguistic materials and zoological records. Chaghatai sources from the 17th century dealing with medicine, as well as medical manuscripts from Eastern Turkestan (contemporary Xinjiang in western China) written down in the late 19th and early 20th centuries, have been particularly valuable. To understand how Turkic peoples in Central Asia have perceived the hedgehog, we have also studied linguistic expressions, such as proverbs and riddles. For comparative purposes, we used field data gathered through interviews in Roma and Turkish villages by Ingvar Svanberg in the southern Balkan Peninsula (North Macedonia, northern Greece) and Turkey in the late 1970s.

Distribution and systematics

Currently, taxonomists recognize eighteen species of hedgehogs (Hutterer 2005). The distribution area of the northern white-breasted hedgehog, *Erinaceus roumanicus* BARRETT-HAMILTON, 1900, stretches from Poland, through Austria, the Balkan Peninsula, Crete, and Cyprus, and eastwards through Russia, Ukraine, the Caucasus, and Western Siberia as far as the Ob River. The southern

white-breasted hedgehog, *Erinaceus concolor* MARTIN, 1838, is native to Anatolia and Southwest Asia, including Armenia, Georgia, Iran, Israel and Syria. Brandt's hedgehog, *Paraechinus hypomelas* BRANDT 1836, is native to the Middle East and parts of Central Asia (Uzbekistan, Kazakhstan, Kyrgyzstan, Turkmenistan), while further east it is replaced by the northern long-eared hedgehog, *Hemiechinus auritus* GMELIN, 1770, which also extends to Uzbekistan, Xinjiang, northeastern China and Mongolia. In central and eastern China, including Inner Mongolia and Manchuria, it is replaced by the Amur hedgehog, *Erinaceus amurensis* SCHRENK, 1859 (Aulagnier et al. 2009; Smith & Xie 2008).

Turkic zoonyms

In Hauenschild's (2003: 110) publication about zoonyms, *kirpi* is cited as a name used for both the hedgehog (Ar. *al-qunfud*) and the porcupine (Ar. *ad-duldul*) in the 11th-century Qarakhanid scholar Mahmud al-Kashgari's *Divan Lughat at-Türk* 'Lexicon of the Turkic dialects'. Cognates of this word occur in a number of modern Turkic languages. See, for example, *kirpi* (Turkish), *kirpi* (Azeri), *kirpi* (Gagauz), *kirpi* (Karaim), *kerpe* (Tatar), *kirpi* (Karachai-Balkar), *kirpi* (Turkmen), *kirpi* (Karakalpak), *kirpi* (Kazakh), *kirbi* (Baraba Tatar), *kirpi* / *kirpä* (Eastern Turki / Modern Uyghur) (Räsänen 1969: 272; Levitskaya 1997: 72–74; Hauenschild 2003: 110). These words all go back to Old Turkic *kirpi*, which, according to Clauson (1972: 737), had the primary meaning 'prickle, prick, thorn', and is the source for the derivation of the Turkic word *kirpik* 'eyelash'.

In Kazakh the animal is also known as *kirpikšeßen*, in Kyrgyz it is *kirpičeßen*, and in Karakalpak it is *kirpišeßen*. This name was recorded as *Kirpitschitschin* by Johan Peter Falck in the 1770s (Svanberg 1987: 92). It appears that in Anatolia (and probably elsewhere) the hedgehog has several local names as well. For instance, a paper dealing with folk medicine in central Anatolia lists both the common Turkish name *kirpi* and the local vernacular *köstüçük* (Sezik et al. 2001: 113).

A cognate, *kirpi*, does not occur in all Turkic languages, however. For instance, the word for hedgehog is *terpe* in Bashkir, while in Chuvash it is *čerēp* (Hauenschild 2003: 110; Nugteren 2022).¹

Other interesting exceptions from the commonly observed forms of *kirpe* 'hedgehog' are observed in Loptuq, for example, where it is *jara*, and in Western Yugur, which has *č'ara*, both probably stemming from Mongolic *jaraya* (Nugteren 2023; Nugteren & Roos 1996: 59), while the Tyva name for hedgehog is *čaraa-čečen* (Pal'mbay 1955: 497).

In Anatolia the word *kirpi* is also used metaphorically in several phytonyms, for instance *kirpi otu* 'lit. hedgehog plant', which is used in Anatolia to denote various plants of the genus *Acantholimon*, evergreen shrubs with rigid and linear needle-like leaves similar in appearance to the spines of a hedgehog (Baytop 2007: 228). An Anatolian plant known as *kirpi başı* and *kirpi dikenli* is the globe thistle *Echinops* sp. Another plant found in Anatolia is *kirpi kangalı* denoting *Cirsium echinus* (Baykal et al. 2018: 12). Regarding Turkmen, there is a plant known as *kirpigüli* 'hedgehog rose' (Hauenschild 1989: 70). We also find phytonyms in Kazakh such as *kirpibas* 'lit. hedgehog's head', which denotes simple stem bur-reed, *Sparganium erectum* (Grzywacz 2010: 54). It is also recorded in Azeri *kirpibaş*, Bashkir *terpebaš* and Kyrgyz *kirpibaş* for *Sparganium* sp. (Hauenschild 1996: 95). According to a publication on herbal medicine in Xinjiang, there is a plant called *kirpe térisi* 'hedgehog skin' in Modern Uyghur (XJÖD 1973: 517).

A beneficial animal

Across many areas and cultures, the hedgehog has been considered good at hunting rodents and other vermin, and its presence in the vicinity of settlements has been appreciated (Ståhlberg & Svanberg 2024). The animal has therefore often been captured for this purpose. In 18th-century Siberia,

¹ Recorded by Johan Peter Falck as *tscherei* from Chuvash in the 1770s (Svanberg 1987: 91).

for example, Cossacks were happy to keep hedgehogs as rat catchers in their houses (Ståhlberg & Svanberg 2010). It can be mentioned that the German explorer Albert von Le Coq captured hedgehogs in Turpan and sent them back to Berlin, where they were examined by zoologist Paul Matschie (Le Coq 1926:39). Similar examples can be found elsewhere (Fridell & Svanberg 2007; Warwick 2020; Ståhlberg & Svanberg 2024; Svanberg 2025).

The use of hedgehog skin as a diaphragm is known from Central and Northern Europe (Svanberg & Ståhlberg 2024). Alfred Brehm writes that “in our days many farmers make use of hedgehog skin when they wish to wean a calf; they tie a piece of thorny hedgehog skin around the nose of the still-dilated calf, and then they leave it to the mother to free herself from her now extremely troublesome youngster and accustom him to seeking other food” (Brehm 1923:238). However, we have found no evidence of this custom in the Turkic linguistic area.

Regarding the animal’s temperament, an early 20th-century travel account expresses astonishment over how differently the Inner Asian hedgehog acts from its European counterpart when approached by humans.

Everybody knows the sulky character of the common European hedgehog, how it rolls itself into a ball on the approach of a man, how difficult it is to persuade it to unroll, how viciously it snorts at its supposed enemy, and tries to prick with its bristles anyone who tries to touch it. Our little Asiatic hedgehog behaves like this only towards animals, but at the sight of a human being it not only does not roll itself into a ball, but does not make any attempt to escape; it will allow itself to be picked up like a kitten. If one of these little creatures is attacked by dogs, which set up a terrific barking, it rolls itself up in self-defence, but directly a man appears it runs to him as though to its natural protector. If you pick one up and put it on your lap it will lie there like a kitten and be quite pleased to have its neck tickled, or if you stroke its little velvety tummy it will lower its spines flat so to have its back stroked. But that is not all. If you put it down on the table it will readily feed out of your hand, taking a sip of milk or a tiny piece of meat. It is really an extraordinary thing, for it is an entirely wild little animal, that has probably never seen a man before, much less been handled by one, yet when captured it will behave just like a kitten that has been civilized, so to speak, from time immemorial. I have found these little hedgehogs in the Kirghiz steppes, in gardens in Tashkend, in the mountains of Tian Shan, and in the deserts and gardens of Kashgar, and everywhere they have been perfectly tame, coming up to me freely to be fed or caressed. (Nazaroff 1935: 96–97)

As a cultural hero

The hedgehog appears in several traditional Turkish fables (Eberhard & Boratav 1953: 39, 40, 178). In Central Asian myths and fairy tales, the hedgehog acts as an eloquent counselor and legal spokesman (Taube 1990); see the Kazakh and Kyrgyz names *kirpikšešen/kirpikčečen*, where *šešen/čečen* means ‘the eloquent’ (Hauenschild 2003: 110). According to the lore of some Turkic peoples, such as the Chuvash, the hedgehog brought culture to human beings.

In Chuvash folklore, there was a time when people still did not know the arts of ploughing or making fire. The people decided to ask the hedgehog for advice. They sent for him, but because he was so small, he could not cross the threshold of the house. When he eventually succeeded in passing over the threshold, he accidentally flatulated, and of course all the people burst out laughing.

The hedgehog was devastated and replied: “You can laugh, but you’re not good enough to plough.” The hedgehog did not, however, hold a grudge against the people. Instead, he soon taught them how to handle a plough and make fire (Anderson 1914). Such stories depicting the hedgehog as a clever animal can also be found among other Turkic peoples. For instance, the following story was recorded by Potanin among the Kazakhs of the Tarbagatai Mountains in the China-Kazakhstan borderlands:

Formerly Kerpek Shêshêñ, that is the hedgehog, was a bey and sat in the Beylik (that is the assembly of beys). In that time was Dzalmaus Pêigambar, who destroyed much people and cattle, devouring them. The nation collected together and took counsel under the presidency of the nobles as to what to do. Then some one remembered that there was a wise bey, Kerpek Shêshêñ; so they sent to him to ask his advice. “How shall I go?” said the hedgehog; “I have no feet.” Kerpek Shêshêñ was round and had no feet. “We will give you feet,” said the courtiers. They made feet and placed Kerpek Shêshêñ on them. Kerpek Shêshêñ went to the council and asked about the matter. Then they told him Dzalmaus devours people and cattle; he started to go to Dzalmaus, came to him to his tent, and asked: “Wherefore he devoured people and cattle?” “Why?” asked Dzalmaus, “for the same reason that I shall swallow you.” “Swallow!” replied the hedgehog. Dzalmaus swallowed him, but the hedgehog bristled out and stuck in his throat. Dzalmaus wished to vomit him, but the hedgehog held on by his feet. Then Kerpek Shêshêñ put out his head and asked Dzalmaus what it was necessary to give that he should no longer devour people. Dzalmaus demanded gold. Kerpek Shêshêñ came forth from the throat of Dzalmaus and departed not knowing where to obtain gold. On the road there met him a man all in white, his head also was bound with a white fillet. The white man asked Kerpek Shêshêñ where he was going. The hedgehog informed him. Then the white man (he was Musa Pêigambar, the prophet Moses) led him to a great water, and dug into it with his staff, and broke out a lump of gold like a horse’s head. Kerpek Shêshêñ took the gold to Dzalmaus, and then he ceased to eat people. (Gardner 1885: 312–313)

Folklore and popular expressions

Many beliefs about the hedgehog’s habits appear to be very old and persistent. Pliny the Elder devotes an entire chapter to the hedgehog in his *Naturalis Historia* (book 8, chapter 56), written around 77–79 CE. In his report he writes that the animal gathers winter supplies by rolling around among pieces of fallen fruit and then carrying them home, spiked on its thorns, to its nest in a hollow tree trunk.

The mythical ability of hedgehogs to gather fruit for their offspring has actually spread far beyond Europe. Gunnar Jarring explains that in Central Asian lore the hedgehog is considered to be a very clever animal. The tales he heard in 1978 while visiting the Turfan oasis in Eastern Turkestan (Xinjiang) resemble those mentioned above. Since the main crop in Turfan is grapes, it is not surprising to find stories about this fruit. He writes that according to local lore, hedgehogs would roam the vineyards in Turfan since they found an abundance of grapes on the ground there. They would gather the fruit by rolling around so that the grapes got stuck on their spines. Then they would return to their dens with the fruit and feed their young with it (Jarring 1979: 232).

Proverbs and Riddles

Turning to Inner Asia, and more specifically to Eastern Turkestan/Xinjiang, we also find several sayings, proverbs, and riddles about hedgehogs. Along with other animals, hedgehogs appear in dream interpretations from Eastern Turkestan. For instance, one of Nikolai Katanov’s recordings from Qomul in the northeastern part of East Turkestan in 1892 contains the following phrase: *Ägär kirpeni tüs körsä, göš-neşin (söpa) bołur* ‘One who sees a hedgehog in his dream will become a Sufi’ (Menges 1943: 150).

As mentioned, there are also several proverbs relating to the hedgehog, for example, *kirpe tikini bilen maxtinar* ‘The hedgehog is proud of his spikes’. Another is *paydini körsä bürgidek čaqqan, ziyanı körsä kirpidek yatqan* ‘If someone sees advantages coming, then (s)he will leap like a flea, but when someone sees loss coming, (s)he will lie down like a curled-up hedgehog’ (Beilikezi 2011: 29).

Another proverb that also occurs in Kazakh sources is *qaya balam appaq, kirpe balam jumšaq* ‘If I have a child like a crow, it should be white; if I have a child like a hedgehog, it should be soft’.² This one is very similar to proverbs about hedgehogs in neighboring Turkic languages. For example, in Uzbek we find the following: *Qo'ng'iz bolasini oppog 'im der, tipratikan bolasini yumshog 'im der* ‘The beetle calls its kid white; the hedgehog calls its kid soft (= Everyone loves their own child.)’ (Mamatova 2021: 4).³ The late American anthropologist Jay Dautcher who carried out work in Ghulja, Xinjiang in the early 1990s discusses this in detail.

The crow says “My baby is white” *kagha balam apaq*. The hedgehog says “My baby is soft” *kirpe balam yumshaq* – Abidem, citing a Uyghur proverb. A Uyghur woman preparing to give birth is said to have “gleaming eyes” (*köz yorush*). Once her child is born, her eyes may no longer gleam, but as the proverb quoted above suggests, they will continue to look on her newborn child in a special way. Just as the crow sees her baby as the whitest of all, a mother sees her child as a superlative and unique individual. (Dautcher 2009: 78)

A few riddles about hedgehogs have been published. The following examples are from Emel Tokmak (2010: 186). We have provided an English translation of Tokmak’s material. These riddles mainly relate to the hedgehog’s peculiar appearance, but they also mention qualities such as its ability to catch snakes and other “unwanted” animals.

Riddle 1

*Bir qarisam müşüktek,
Sinçilisam müştimdek,
Tömür tiken tonni kiyip,
Ömilep yürgen kişidek*
(*Kirpe*)

(What is) like a cat when I look at it,
(but) when I look closer is like a fist,
(and what is) like something dressed in a coat of
iron thorns, (and) like a person crawling?
(Answer: The hedgehog)

Riddle 2

*Özi dügilek, tikini bar,
Çümülidin dad deydu.
Yilanı körse tügülüp,
Quyriqidin hap deydu*
(*Kirpe*)

(What is) is round and has thorns,
always complains about the ants,
curls up at the sight of a snake,
and turns his courage toward the serpent’s tail?
(Answer: The hedgehog)

Riddle 3

*Kiçikkine boyi bar,
Xoxa tiken⁴ toni bar?*
(*Kirpe*)

(What has) has a small body,
and a thorny frock?
(Answer: The hedgehog)

Interestingly, the Uyghur proverbs resemble the riddles about hedgehogs in neighboring Turkic languages. For instance, in Kazakh we find the following proverb:

2 Kirchner (1993: 103) mentions a Kazakh version of the same proverb: *kirpi balasin žumsağım, garga balasin ap-pağım der* ‘Der Igel nennt sein Junges “mein Weiches”, die Krähe nennt ihr Junges “mein Weisses”’. The proverb can thus be understood as a way of saying that everyone likes their own children above all and cannot objectively judge their characteristics.

3 Another one with almost the same meaning is *Tirpatikan ham o'z bolalarini yumshog 'im deb erkalaydi* ‘Even the hedgehog cuddles its young, saying “you are soft” to it.’ In Kazakh we find *Kirpi balasin žumsağım der* ‘The hedgehog says “you are soft” to its young’. (Türmanzhanov 1959: 105)

4 *Hoha tikān* ‘a curled thistle’ (Raquette 1912; Schluessel 2015: 26).

Tiken-tiken denesi
Kip-kişkentay kölemi
Žawabi – kirpi

His body is thorny
 His size is small
 Answer: hedgehog

Hedgehogs as food

It is well established that many societies and cultures have consumed hedgehogs as food. Even the ancient Greeks valued the hedgehog as a food source (Soyer 1853). In former Yugoslav Macedonia, a Turk from the village of Topolnica, near the town of Radovič, told Svanberg in 1977 that they ate hedgehogs, known as *kerpi* in the local Turkish dialect (Svanberg 2025). Historical sources show that the demand for hedgehog as a foodstuff is not limited to the Balkan Peninsula; it was also utilized elsewhere in the past (Warwick 2014:65–66; Ståhlberg & Svanberg 2024).

The British zoologist Dorothea Bate (1903) reported that the population of Cyprus liked to eat the long-eared hedgehog, *Hemiechinus auritus* GMELIN, 1770. More recent sources confirm that hedgehogs were still consumed in Cyprus in the 2000s, typically as an ingredient in soup or baked with potatoes (Egoumenidou & Michaelides 2000:117).

Hedgehogs as medicine

While hedgehogs have been used as food, in many areas they have also been thought to have medicinal properties (Gunda 1962; Ståhlberg & Svanberg 2024; Svanberg 2025). The use of hedgehogs in medicine dates back to ancient times and is mentioned in a number of historical sources. Their meat, fat, and spines have all been utilized as medicine. For example, the Papyrus Ebers, written around 1550 BCE in Egypt, contains a recipe for baldness that calls for grinding thorns of hedgehog and mixing them with fat or oil to anoint the head (Nunn 2002:95). Another ancient mention of hedgehogs comes from the famous physician Pedanius Dioscorides, who recommended using hedgehogs to treat kidney problems, dropsy (a pathological accumulation of fluid in the body), and cramps.

As Quave and Pieroni (2013) point out, “Animals have been used as a source of human medicine for millennia. In the Mediterranean, these ancient practices were documented in historic texts such as Dioscoride’s *De Materia Medica* (40–90 A.D.).” While the historical and recent use of hedgehog meat and skin for various purposes has been reported from a wide geographical area, Quave and Pieroni’s fieldwork reveals that in some rural areas of Romania the hedgehog spines were used “for treating vaginal complaints.” The authors claim this is a unique area of usage since it “is quite different from that reported by Dioscorides,” who spoke of other uses, such as for the treatment of “baldness, dropsy, elephantiasis, and diarrhea – but nothing related to gynecological issues” (Quave & Pieroni 2013: 309).

Turning further east, we see that some of Svanberg’s informants in the 1970 and 1980s, especially in Turkey, emphasized that hedgehog meat was mainly used as medicine. For example, they would cook and eat a soup made from hedgehog (Ståhlberg & Svanberg 2024). One article on folk medicine in Turkey points out that those participating in the study appreciated the taste of the meat (Gizem et al. 2021: 12).

Regarding its medicinal uses, research from the early 2000s demonstrates that the animal has been used in some parts of Anatolia to treat tuberculosis, hemorrhoids, and scrofula (Sezik et al. 2001: 113). More recent research from different parts of Turkey corroborates these findings and also mentions the use of hedgehog as a treatment for hemorrhoids (Ezer & Mumcu Arisan 2006: 229; Emre et al. 2021: 12).

Writing about Anatolia, Çaya (2015: 43) is quite critical of such beliefs and attributes folk remedies to the domain of “superstition.” It is therefore easy to understand why he dismisses popular practices

such as “smearing on the skin” with what, from his standpoint, is “obviously filthy and microbe contaminated stuff like remains of a dead hedgehog” (Çaya 2015: 43). Regardless of the disputed efficacy of these remedies, the studies reveal multiple uses of the hedgehog in Turkey today.

If we look at the neighboring Azeris, we find both historical and contemporary materials that speak of the use of hedgehogs for medical purposes. Discussing the 11th-century doctor and pharmacist Umar ibn Usman Kafiaddin – “the most famous doctor-scientist among the Azerbaijani Turks” – Bandalieva et al. (2023: 55) mention his medicinal use of hedgehogs, writing that he “used organ therapy: he treated his grandfather with hedgehog oil for oral administration, he used crushed animal bone powder for joint pain, and for mild diseases he used animal brain powder, egg yolk and ‘fodder’ grass collected early in the morning.”

Other Turkic peoples, such as the Turkmen, have also used hedgehog. For example, it is mentioned as a product used by Turkmen women healers in the Torkaman-sahrā district of northeastern Iran (Maghsudi 2007: 5). Contemporary sources from Kazakhstan indicate that badger, dog or hedgehog fat is used to strengthen the liver and intestines. Hedgehog meat is eaten to prevent and treat pneumonia (Grzywacz 2010: 12).

There are also reports from the Middle East. For example, Bedouins in the Levant consider the meat of the hedgehog to have medicinal properties and believe it can cure rheumatism and arthritis (Qumsiyeh 1996: 64).

In addition to Turkic medical sources, it is important to note that various Arabic and Persian medieval sources also mention the use of hedgehogs for medicinal purposes. Thus, this usage does not necessarily stem from anything particularly Turkic. Rather, the practice of using the animal has been noted across Eurasia and North Africa. Our sources (both historical and contemporary) indicate that in the Muslim area the animal has not primarily been consumed as food. Rather, its use appears mainly to have been restricted to medical purposes. As mentioned by Viré (2004), however, hedgehogs, along with several rodents, were quite extensively used as food in Arabia until the 8th century.

Before Islam, certain rats, especially the country ones, were hunted for their flesh, as were the uromastix lizard [...], the hedgehog and the porcupine [see KUNFUDH] and the jerboa [...]. (Viré 2004: 286)

Regarding the medical use of hedgehogs, we have several Arabic and Persian sources at our disposal. It is not possible to mention them all, but suffice it to say that quite a few ancient medical treatises mention the animal. For example, Sābūr ibn Sahl (d.869)⁵ writes in his dispensatory that hedgehog gall (*marārat al-qunfud*) (Kahl 2009: 243) and hedgehog skin (*gild al-qunfud*) (Kahl 2009: 241) were used for various purposes.

If you take the skin of a hedgehog, grind it, mix it with honey and smear it on (the area that is affected by) alopecia, it makes the hair grow; applying its gall as a collyrium helps albugo, drinking it is useful against leprosy, dysentery and consumption. (Kahl 2009: 210)

In addition to the meat, skin and gall of the animal, several sources mention medicinal and magical uses of the hedgehog (Ståhlberg & Svanberg 2024). For instance, the Balkars of the northern Caucasus used to put hedgehog spines and skins in a cradle as a form of apotropaic magic to protect a baby from the evil eye (Boatova, Uzdenova & Kerimova 2019: 224). The hedgehog’s historical connection to magic and medicine is also confirmed in written sources. For example, Pellat writes that “Al-Damīrī, in his *Hayāt al-hayawān*, from whom these details are borrowed [...] provides in every account, under the heading of *khawāṣṣ* ‘properties’, data concerning the use of the blood of animals in magic and medicine” (Pellat 2004: 191). As we will also see when discussing the Turkic material, the hedgehog was apparently used to increase potency and to protect against (supposedly rabid) dog bites.

5 A Nestorian physician and pharmacologist who worked at the hospital of Gondeshapur in southwestern Iran before moving to Baghdad (Kahl 2009: 1).

About the use of hedgehogs in Morocco, we learn that “Virility can be improved or restored thanks to the blood of” several animals including “the hedgehog (*kunfudh*),” and that “the effects of a dog-bite are alleviated by means of the blood of the hedgehog” (Pellat 2004: 191).

Interestingly, the animal was not only used as medicine for humans, but is also mentioned in veterinary treatises. For instance, in the book *Mamluks and Animals*, hedgehog is recommended as one of several ingredients given to young birds that were later going to be used for the purpose of hunting.

Al-Baladī also recommends a special diet for young birds during moulting. Bat meat, hedgehog meat (without the skin) and dried hornets are said to be most appropriate for this situation. To accelerate the moulting process, a sauce composed of balsam, wormwood-absinth (*afsintīn*), ginger and honey was added to the meat. If some of the old feathers do not fall off by themselves the tamer is required to pluck them out carefully, so as not to hurt the bird. A special kind of oil is then spread over the same spot. (Shehada 2013: 396)

Central Asia

As we have seen above, both Arabic and Persian sources refer to the hedgehog as a medicine. In the following section, we will see that the animal was also used extensively for medical purposes by the various Turkic peoples of Inner Asia. With regard to the region, historical medical sources do not specify the species of hedgehog in question. However, it is possible that, concerning Eastern Turkestan, it is the long-eared hedgehog (*Hemiechinus auritus*), a species found from the Middle East to Central Asia, that is meant.

While hedgehogs are mentioned in connection with archaeological findings in Central Asia (Taube 2020) and Old Uyghur materials (Rachmati 1932; Nugteren 2022), as well as in a few proverbs and riddles that have survived until the present day, their main use in Eastern Turkestan appears to have been medicinal.

As demonstrated above, the hedgehog has been used in various Turkic settings and neighboring areas since ancient times. For instance, Old Uyghur documents attest that the ashes from burnt hedgehog skin were applied to the nose as a remedy for nosebleeds (Rachmati 1932). The manuscripts we have used to analyze the animal’s role in Eastern Turkestan are of a later date, having mainly been collected in the late 19th and early 20th centuries. These sources provide us with rich information about this peculiar animal’s role in traditional medicine in Central Asia and can also serve as comparative material for further studies.

Terminology

Medical manuscripts from western Turkestan (i.e. contemporary Uzbekistan) and Eastern Turkic manuscripts from the southern Tarim area contain a number of references to the medicinal use of hedgehogs. As elsewhere in the Turkic language area, a variant of the Old Turkic word *kirpi* was used in Eastern Turkestan. Manuscripts and dictionary sources from the early 20th century mostly spell the word as *kirpä* or *kirfä*, or *kirpi*, *kirfi* ‘hedgehog’; see Raquette (1927: 49) and Schluessel (2015: 45).

These words can be juxtaposed with Subhān Qulī’s 17th-century medical treatise from Western Turkestan, which uses the Persian word *hār-pūšt* ‘hedgehog’ (Károly 2015: 260). Another source related to Eastern Turkestan is a translation of the 1887 Persian medical treatise *Makhzan al-adwiya* ‘a treasury of medicines’ by Muhammad Husain (Elawi 2012). Interestingly, despite being a Uyghur translation, the publication has indexed hedgehog/porcupine with the Arabic word *qunfud*, instead of the customary variants of *kirpi*; it is not easy to determine which animal the author refers to.

According to the book, the hedgehog/porcupine has many uses. For instance, its meat and liver have astringent properties. The ashes of its burned skin have the effect of stopping bleeding. Gener-

ally, the animal is used to cure, halt, or prevent disease and ease symptoms in the major organs, joints, and respiratory, digestive, and excretory systems. It also has wound-healing and antiseptic effects that benefit wounds and reduce swelling. It is also used for skin and hair beauty, removing freckles and protecting against hair loss (Elawi 2012: 1649). As we can see from this description, its uses are very similar to those found in the Eastern Turki medical texts examined here.

In several of the manuscripts that we have analyzed, it is clear that the entire hedgehog or parts of it were historically used either as a sole ingredient or in combination with other substances; see Table 1. The sources show that the preparation of such medicines involved such things as boiling and roasting the animal, and in a few cases we find examples of it being applied to the human body while still hot and in its raw state.

ağär tuğmas mażlūmğa qeri kirfi öltürüb issiğ farjığa yaqib oltursa ötni šul kirfiniğ yağı birlä köydüsä altini yağlab jímäg qilur

If a woman is infertile, she should kill an old hedgehog, place it on her genital area, and keep it there while it is still hot. Then, she should burn the gallbladder of that hedgehog with its fat, smear it on her pubic area, and engage in sexual intercourse. (Prov. 283, f. 26b15-27a1)

Table 1: *Parts of the hedgehog used for medical purposes*

Bed-wetting	Flesh, roasted and eaten (as food) (Károly 2015: 107, 191),
Bravery	Heart, eaten (as food) (Prov. 24, f. 15b12-16a1; Prov. 351, f. 20a5-6).
Callosity	Flesh, burned and applied (436/V, f. 125v2-3).
Childbirth (difficulties)	Skin, fumigated (Prov. 283, f. 47b9-10).
Colic	Gallbladder, boiled and eaten (as food) (Prov. 24, f. 19a6-10).
Eczema	Blood, smeared on (Prov. 283, f. 64a7-8).
Eyes (weakness)	Gallbladder, smeared on (Prov. 24, f. 20a9-10; Prov. 283, f. 11b12-13; Prov. 283, f. 54b16; Prov. 283, f. 64a7-8; Prov. 351, f. 17b2-3).
Eyes (night blindness)	Bile, smeared on (Prov. 354, f. 51b10-11).
Eyes (making bright and clear)	Fat, smeared on (Prov. 354, f. 51b10-11).
Eyes (glaucoma, leucoma)	Gallbladder, smeared onto (Prov. 24, f. 19a6-10).
Fleas (protection from)	Gallbladder, smeared onto (Prov. 24, f. 19a6-10).
Fleas (removal from the body)	Gallbladder, smeared onto (Prov. 283, f. 11b12-13).
Hair (desired)	Flesh, boiled and eaten (as food) (Prov. 24, f. 15b12-16a1).
Hair (undesired)	Gallbladder, dried and smeared onto (Károly 2015: 65, 141).
Heart (pain)	Spines, fumigated (Prov. 283, f. 39a17).
Heart (for a pure heart)	Spines, fumigated (Prov. 283, f. 61a1-2).
Infertility (of women)	Gallbladder, smeared onto (Prov. 283, f. 11b12-13).
Liver (complications)	Gallbladder, smeared onto (Prov. 24, f. 15b12-16a1).
Lungs (complications)	Heart, roasted and eaten (as food) (Prov. 351, f. 21a7-9).
Phlegm (removal)	Flesh, boiled and eaten (as food) (Prov. 24, f. 15b12-16a1).
Polyps (vaginal)	Flesh, put on (Prov. 283, f. 26b15-27a1).
Potency (increasing)	Flesh, boiled and eaten (as food) (Prov. 283, f. 11b12-13).
Smell (removal of foul odor from breath)	Flesh, boiled and eaten (as food) (Prov. 283, f. 11b12-13).
Stomach (strengthening)	Flesh, eaten (as food) (Prov. 283, f. 66a7-8).
Trouble and disease (general health)	Flesh, eaten (as food) (Prov. 24, f. 15b12-16a1).

Unspecified medical problems	Gallbladder, powdered and smeared onto (Prov. 283, f. 11b16).
Urinary complications	Bowels, eaten (as food) (Károly 2015: 107, 191).
Wounds	Gallbladder, smeared onto (Prov. 351, f. 17b2-3).

The hedgehog as medicinal food

Several of our Eastern Turki sources maintain that ingesting hedgehog as food is an effective treatment for various illnesses. This is also observed in medical manuscripts from neighboring areas. The animal was eaten to treat a number of conditions, many of which are difficult to specify, such as “trouble and disease” (e.g., general health) or “foul smell” (bad breath) coming from the mouth, while other passages are more specific. According to our sources, hedgehogs were eaten to strengthen the stomach. One section also points out that the animal should be consumed during wintertime (for best results) (Prov. 283, f. 66a7-8). MS Prov. 283, f. 66a7-8, states that eating hedgehog removes (undesired) phlegm from the body.

Regarding other uses, the animal was consumed with sugar as a way of increasing potency (Prov. 283, 64b16). Boiled hedgehog (meat) was used for liver and lung complications, against colic, to make eyes bright and clear, and also to obtain a “pure heart.” Subhān Quli’s medical treatise shows that the animal was ingested as medicine in Western Turkestan. He also recommends roasting and eating the animal’s bowels in case of urinary obstruction, while another passage from the same manuscript prescribes eating roasted hedgehog when suffering from bed-wetting.

agar hār-puştñi qawurub ašasa özgä töşäkdä siymägäy

If someone roasts and eats a hedgehog, he will not wet the bed another time. (Károly 2015: 107, 191)

The gallbladder

Regarding various parts of the hedgehog that were used, we have mentioned its blood, fat, skin and spines. However, it should be emphasized that the gallbladder plays a key role as a remedy for numerous medical conditions. It was eaten or used externally. In one recipe, we see that eating boiled hedgehog gallbladder was considered a remedy for colic. Our sources also mention using the gallbladder to treat skin problems and wounds, but it was also used for various problems related to the eyes, such as weak vision, night blindness, and glaucoma, as well as sexually related problems, such as polyps (in the vagina) and infertility (in women). Furthermore, the gallbladder was employed for “cosmetic” purposes including both hair removal and promoting hair growth. Perhaps this is “an indication that, like today, earlier generations were preoccupied with their external appearance and aesthetics” (Hällzon 2022: 315).

Concerning the use of hedgehog gallbladder, it appears that this practice has a wide distribution across Turkic-speaking parts of Eurasia. For example, the 15th-century Anatolian treatise *Kitābu'l-Münteħab fi't-Tib* ‘A book of selections on medicine’ (1420) discusses the use of hedgehog gallbladder against ingrown eyelashes (trichiasis):

... ve eger men^c olmazsa kılı çekmek gerek ve yerine ete yapışan kenenüj kanını ... sürtmek gerek ... yāħūd alasin kirpi ödi ve cündibādester yā'nī kunduz hāyesi berāber yumşak dögesin ve gögercin kaniyula yuğurasın ve balık pulı gibi yufka kurşacuklar eyleyesin ve ol kılı çekesin ve ol kursalaruň birisini tükrük ile ezesin ve kılun yerine sürtsin

If (the hair growth) does not stop, the hair has to be removed and the blood of a tick that has already sucked ... has to be smeared on that place ... or take the gallbladder of a hedgehog together with *Ferula meifolia*, crush them until smooth, knead it with the blood of a pigeon, and make thin pills like fish scales. That hair should be removed. Take one of those pills, masticate it with saliva, and smear it on the location of the hair. (Bayat 2005: 112)

Similarly, the 15th-century Ottoman medical treatise *Yâdigâr ‘Memento’* recommends the blood and gallbladder of a hedgehog for misdirected eyelash growth (Sakin et al. 2017: 247). The ashes of hedgehog skin are recommended for hair loss, including facial hair (Sakin et al. 2017: 340), and hedgehog gallbladder is a useful ingredient against leprosy (*baras*) (Sakin et al. 2017: 342).

Methods: Smearing, daubing and fumigating

In addition to eating the hedgehog, several other methods were employed, such as daubing parts of the animal onto wounds and eczema. Various parts of the animal were used, including its blood, fat and bile. Another commonly employed method in Central Asia was burning the animal’s skin, fat and spines to make smoke. In an unpublished manuscript source, *Risâla-i şifâ’ al-abdân* ‘A treatise on curing the body’,⁶ the author points out that,

kirpini küydürüp nâşûr üstigä salsa nâfi’-dur

If one burns a hedgehog and puts it on the callosity, it is beneficial. (MS 436/V, f. 125v2-3)

Moreover, in Eastern Turkestan, fumigating with the smoke of burning hedgehog spines together with several other ingredients was considered a means of ensuring protection from fleas (or of removing such parasites).

ägär kişi bürgädin qutulay desä jîgdä čiçäki kirfiniñ tikäni islasa qutatur

If a person wants to protect him/herself from fleas, (s)he should fumigate oleaster flower and hedgehog spines. It will provide protection. (Prov. 283, f. 39a17)

Making smoke for medicinal fumigation was also a method used for difficult childbirth. For instance, an Eastern Turki source from the late 19th century recommends the following:

*ägär mažlûmniñ tuğuti duşwâr bolub balasi čiqmasa aṭ tuwaqini köydürüb kirfâ târâsigâ yörâkib köy-
dürüb islasa balasi äsân kâlür*

If a woman’s childbirth is difficult and the baby won’t come out, one should burn horse hooves, roll it up in hedgehog skin, and burn it to make smoke. Then the delivery of the child will come easily. (Prov. 283, f. 47b9-10)

The hedgehog in contemporary Uyghur medicine

While the main focus here has been on historical material from the western parts of Central Asia corresponding geographically to modern-day Uzbekistan and Eastern Turkestan (Xinjiang), some quite recent accounts also speak of the medical use of hedgehogs.

Some contemporary Uyghur sources maintain that, since the 1960s, traditional Uyghur medicine has continued to develop methods for collecting traditional recipes and creating new ones based on them. However, due to several factors, such as hedgehogs becoming rare animals and recipes being modified, the use of hedgehogs as a raw material for medicine has gradually decreased. Despite this, we can still find information about the use of hedgehogs in some Uyghur medical recipes (Ismail 1998: 29; Ebeydulla Hajim 2010: 452-453).

The medical use of hedgehogs in Xinjiang is also attested in contemporary Western sources. For example, in a Master’s thesis about traditional Uyghur medicine in the Khotan oasis, Lapham (2005: 64) writes that “skin of hedgehog is believed to help with a prolapsed uterus when eaten as a stew. If you stew it for about an hour, it will become crystal clear and sparkly.”

⁶ It is held at the Al-Biruni Institute of Oriental Studies, Academy of Sciences of the Republic of Uzbekistan, with the shelf mark 436/V; see, further, Semenov (1952: 280).

Medical and non-medical conditions

Returning to pre-modern Central Asian medical manuscripts, we find that they frequently mention certain conditions that perhaps cannot be termed medical according to our modern understanding. However, Central Asian medical treatises make frequent reference to a number of such matters. For example, medical sources discuss various ways to handling one's personal love life or to finding out if a spouse is cheating, give cosmetic advice, and also contain passages related to finding thieves, recovering lost property, and so on.⁷ Thus, it is not surprising to see in the following passage that, in addition to being used as a medicament for the eyes, different applications of hedgehog were recommended for so-called “non-medical aspects” as well. For instance, the animal was used to obtain a “pure heart,” and to become brave. It was also used to remove unwanted body hair.

ägär kirpäni qazanda qaynatib yesä köz rōšān bolğay köňül şäf bolğay barça ‘illatdin zaḥmatdin īmīn bolğay
ägär kişi kirpäniň yüräkini yesä bisyär yüräklig bolğay ägär kirpäniň ötini här yärgä sursä mōy ünmägäy

If someone boils a hedgehog in a cooking pot and eats it, the eyes will become clear and the heart will turn pure. The person will be free from every trouble and disease. If the person eats the heart of a hedgehog, he will become very brave. If someone smears the gallbladder of a hedgehog all over the body, hair will not grow there. (Prov. 24, f. 15b12-16a1; see also Hällzon 2022: 243)

As demonstrated above, the boundary between cosmetic and medicinal uses was not very strict in pre-modern medical treatises. We believe that putting too much focus on explaining whether topics are medical or non-medical obscures the historical and sociocultural understandings of the Eastern Turki texts. Instead, we argue the necessity of adopting a holistic approach that analyzes the sources within the context of when they were originally written and for which audiences. It should be emphasized that the multi-thematic nature of Eastern Turki medical texts is not a unique feature, but corresponds to the tradition of classical Muslim medical texts elsewhere in Eurasia. If we take the example of cosmetics, for example, we see that they are mentioned as a special section in the works of several classical Graeco-Islamic medical authors, such as Ṭabarī, Al-Rāzī, and Ibn Sīnā (Avicenna) (Myrne 2022: 7–8).

As Pernilla Myrne points out, “medical authors offered remedies for fattening the body, treating skin conditions, and dyeing the hair for women as well as men. The famous physician Ibn Sīnā devoted the seventh and last part of the fourth book of *Canon of Medicine* to cosmetics and physical appearance. Similar treatments were also provided in hospitals or sold in the market, judging by dispensaries and pharmacological manuals” (Myrne 2022: 8).

In a similar fashion, Housni Alkhateeb Shehada convincingly shows in *Mamluks and Animals* (2013) that the overlap between medicine and cosmetics is an ancient feature of the Graeco-Islamic medical tradition. The book deals with items usually associated with cosmetics, such as face powders, liniments and perfumes. However, as the author notes, cosmetics are a broad domain in medical treatises. For example, in the discussion of the tasks of the *hajjām*, an expert in “*hijāmah* – treatment by cauterization”, several “cosmetic” treatments are mentioned, such as “removing hair from the armpit and the genital area, shaving the beard and the moustache, manicure, dyeing hair” and more (Shehada 2013: 185–186).

Final remarks

Research on so-called traditional medicine has often focused on plants, while the use of animals in medicine and healing rituals has received less attention. As various sources, including manuscripts, archeological finds and more recent material, clearly reveal, the hedgehog has held considerable cul-

⁷ Regarding themes such as “finding a thief,” these are discussed in both Eastern Turki texts (Prov 351) and treatises from other geographical areas; see Károly 2015.

tural and material importance for diverse peoples across Eurasia and North Africa for millennia. This also applies to the Turkic-speaking communities in Southwestern and Central Asia, where the animal has been used for various utilitarian purposes including food, but especially as medicine. As has been demonstrated, this small animal's peculiar appearance and behavior have also been noted in oral literature, such as fables, proverbs, riddles and the origin stories of different communities. A number of myths are also associated with the animal, perhaps the most widespread of which is the idea that hedgehogs use their spines to collect food. As noted above, this motif appears in ancient sources such as Pliny the Elder, and its distribution in folklore is equally vast, spreading from Great Britain in the west to Turkestan in the east.

As demonstrated in this article, the hedgehog has historically been used for a variety of practical purposes throughout Eurasia. With regard to the Central Asian region, however, our materials mostly speak of medicinal use. It is possible, of course, that there have been other uses, but the sources we have examined here mainly mention the use of hedgehogs for medical purposes.

Until a few decades ago, at least, the use of hedgehogs for food and medicine was a living tradition among Turkic peoples, while in northern Europe, this tradition belongs to pre-industrial society, i.e. the 19th century and earlier. The extent to which hedgehogs are still used for medical purposes in Europe is less studied, but it is likely that they are still used in this way.

Regarding language use, we see that most Turkic languages use different forms of the word *kirpä* to denote the hedgehog. However, some lexical forms are derived from Mongolic. In folklore, we also observe several overlaps between Turkic languages. This is especially evident in proverbs. This sharing of oral literature indicates that the proverbs are of a very old origin. However, while the animal appears in several proverbs and riddles from the region, it is clear that the richest source of information is medical texts. Regarding the consumption of hedgehog, this practice has been observed in several geographical areas. Here, we note that its function as a foodstuff appears to have mainly been oriented towards health-seeking practices. It is therefore not surprising to see that it appears as an ingredient in several medical texts. These writings show that various parts of the animal were used to treat ailments such as poor eyesight, heart problems, and skin conditions, among other things. It should be added that its use was not restricted to ailments as such, but extended to other areas such as cosmetics.

Instead of focusing on modern categories, such as medical or non-medical topics, we have chosen to use a holistic approach in our analysis, emphasizing local understandings of the different texts. We see that, with regard to content and themes, the Eastern Turki texts display strong continuities with medical texts written elsewhere, such as in Western Turkestan, as well as in Persianate and Arabic-speaking areas. Here, the focus has been on the hedgehog in Eurasia. It would be interesting to see what similarities and differences there are with regard to other animals in terms of both use and lexicography.

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Appendix

List of manuscript examples

Bayat 2005: Kitâbu'l-Müntehab fî'l-Tib 'A book of selections on medicine'

ve eger men^c olmazsa kılı çekmek gerek ve yerine ete yapılan kenenün kanını ... sürtmek gerek ... yâhûd alasın kirpi ödi ve cündibâdester yâ'nî kunduz hâyesi berâber yumşak dögesin ve gögercin kanıyla yugurasın ve balık pulı gibi yufka kurşacuklär eyleyesin ve ol kılı çekesin ve ol kursalaruň birisini tükrük ile ezesin ve kıluy yerine sürtsin

If (the hair growth) does not stop, the hair has to be removed and the blood of a tick ... has to be smeared on that place ... or take the gallbladder of hedgehog together with *Ferula meifolia*, crush them until smooth, kneel it with the blood of a pigeon, and make thin pills like fish scales. That hair should be removed. Take one of those pills, masticate it with saliva and smear on the location of the hair. (Bayat 2005: 112)

Károly 2005: *Tabīblik kitābī* ‘A book of medicine’ / *Ḩulāşat al-ḥukamā’* ‘Summary of physicians’

agar ḥār-pūşt ötini quruq etib közgā sürtslär aqlığını ketärgäy

If someone dries the gallbladder of a hedgehog and rubs it on the eyes, it will remove the leucoma. (Károly 2015: 65, 141)

agar ḥār-puştñiñ qursağınıñ qawurub ašasa sidüki ačilğay

If someone roasts and eats the bowels of a hedgehog, the way of his urine will be opened. (Károly 2015: 90, 171)

agar ḥār-puştñiñ qawurub ašasa özgä töşäkdä siymägäy

If someone roasts and eats a hedgehog, he will not wet the bed another time. (Károly 2015: 107, 191)

436/V: *Risāla-i şifā’ al-abdān* ‘A treatise on curing the body’

kirpini küydürüp nāşür üstigä salsa nāfi’-dur

If one burns a hedgehog and puts on the callosity, it is beneficial. (436/V, f. 125v2-3)

Prov. 24: *Tebabčiliq* ‘On a physician’s profession’

ağär kirpāni qazanda qaynatib yesä köz rōşān bolğay köňül şāf bolğay barča ‘illatdin zahmatdin īmīn bolğay ağär kişi kirpāniñ yüräkini yesä bisyār yüräklig bolğay ağär kirpāniñ ötini här yärgä sürsä mōy ünmägäy

If someone boils a hedgehog in a cooking pot and eats it, the eyes will become clear and the heart will turn pure. The person will be free from every trouble and disease. If the person eats the heart of a hedgehog, (s)he will become very brave. If someone smears the gallbladder of a hedgehog all over the body, hair will not grow there. (Prov. 24, f. 15b12-16a1)

ağär kimärsä qawlanj zahmatiga giriftär bolsa sičqannıñ miyäsini bir mişqāl wuğūdiğa kiygüzsä daf^c bolğay yā kirpāni qaynatib yesä häm daf^c bolğay här kimniñ közi hıra bolsa kirpāniñ ötini sürsä daf^c bolğay şab kör bolsa häm daf^c bolğay

If someone suffers from the complications of colic, (s)he should take the brain of a mouse and put (an amount corresponding to) one *mişqāl* onto the body. Then the ailment will go away. On the other hand, if one boils a hedgehog and eats it, (s)he will become well. If someone has eye weakness and smears the gallbladder of a hedgehog onto the eyes, it will disappear, and if the person has night blindness, it will disappear as well. (Prov. 24, f. 19a6-10)

yā kirpāni qaynatib yesä häm daf^c bolğay här kimniñ közi hıra bolsa kirpāniñ ötini sürsä daf^c bolğay şab kör bolsa häm daf^c bolğay

On the other hand, if one boils a hedgehog and eats it, (s)he will become well. If someone [suffers from] eye weakness and smears gallbladder of a hedgehog onto the eyes, [the illness] will disappear, and if the person has night blindness, it will disappear as well. (Prov. 24, f. 19a8-10)

här kim kirpāniñ ötini temir’ütkükigä salsa tüzük bolğay

Anyone who applies the gallbladder of a hedgehog onto eczema will become well. (Prov. 24, f. 20a9-10)

Prov. 24: *Tebabčiliq* ‘On a physician’s profession’

ağär kirpāni qazanda qaynatib yesä köz rōşān bolğay köňül şāf bolğay barča ‘illatdin zahmatdin īmīn bolğay ağär kişi kirpāniñ yüräkini yesä bisyār yüräklig bolğay ağär kirpāniñ ötini här yärgä sürsä mōy ünmägäy

If someone boils a hedgehog in a cooking pot and eats it, the eyes will become clear and the heart will turn pure. The person will be free from every trouble and disease. If the person eats the heart of a

hedgehog, (s)he will become very brave. If someone smears the gallbladder of a hedgehog all over the body, hair will not grow there. (Prov. 24, f. 15b12-16a1)

ägär kimärsä qawlanj zaḥmatiga giriftär bolsa sičqanniŋ miyäsini bir miṣqäl wujuḍiǵa kiygüzsä daf^c bolǵay yā kirpāni qaynatib yesä häm daf^c bolǵay här kimniŋ közi ḥīra bolsa kirpāniŋ ötini sūrsä daf^c bolǵay šab kör bolsa häm daf^c bolǵay

If someone suffers from the complications of colic, (s)he should take the brain of a mouse and put one *miṣqäl* onto the body. Then the ailment will go away. On the other hand, if one boils a hedgehog and eats it, (s)he will become well. If someone has eye weakness and smears gallbladder of a hedgehog onto the eyes, it will disappear, and if the person has night blindness, it will disappear as well. (Prov. 24, f. 19a6-10)

yā kirpāni qaynatib yesä häm daf^c bolǵay här kimniŋ közi ḥīra bolsa kirpāniŋ ötini sūrsä daf^c bolǵay šab kör bolsa häm daf^c bolǵay

On the other hand, if one boils a hedgehog and eats it, (s)he will become well. If someone [suffers from] eye weakness and smears gallbladder of a hedgehog onto the eyes, [the illness] will disappear, and if the person has night blindness, it will disappear as well. (Prov. 24, f. 19a8-10)

här kim kirpāniŋ ötini temir’ütkükigä salsa tüzük bolǵay

Anyone who applies the gallbladder of a hedgehog onto eczema will become well. (Prov. 24, f. 20a9-10)

Prov. 283: A Medical Treatise – An Eastern Turki manuscript

ägär kiši kirfiniŋ ötini bir yärgä sürksä mōy čiqqay

If someone smears the gallbladder of the hedgehog somewhere, hair will grow there. (Prov. 283, f. 11b5)

ägär kišiniŋ jığarıda öfkäsidä zaḥmat bolsa kirfini fušurub yesä daf^c bolur kirfi ötini tämär’ätkügä čafsa daf^c bolur közgä čafsa rōšān qilur

If someone suffers from complications in the liver and lungs, boils a hedgehog and eats it, the illness will go away. If someone daubs the gallbladder of a hedgehog onto eczema, it will go away. If someone smears it onto the eyes, they will turn bright. (Prov. 283, f. 11b12-13)

ägär kišiniŋ közgä aq tüssä daslab tuğqan mazlūmniŋ sütini šakar birlä hall qilib näččä marātaba tartsa daf^c bolur

If someone suffers from glaucoma, one should apply the breast milk of a woman who has recently given birth, together with (dissolved) sugar. If one applies this a few times, the ailment will go away. (Prov. 283, f. 11b15)

wä yänä kirfi ötini tawšqan ötini und qilib salsa daf^c bolur

Moreover, if someone makes flour from the gallbladder of a hedgehog and a hare and smears this [onto the afflicted place] the ailment will go away. (Prov. 283, f. 11b16)

ägär tuğmas mazlūmğa qeri kirfi öltürüb issiǵ farjığa yaqib oltursa ötni šul kirfiniŋ yaǵı birlä köydüsä altini yaǵlab jímäǵ qilur

If a woman is infertile, she should kill an old hedgehog, put it on her genital area and keep it there while it is still hot. Then, she should burn the gallbladder of that hedgehog with its fat, smear it on her pubic area and engage in sexual intercourse. (Prov. 283, f. 26b15-27a1)

ägär kiši bürgädin qutulay desä jıgdä čičäki kirfiniŋ tikäni islasa qutatur

If a person wants to protect her/himself from fleas, (s)he should fumigate with smoke of oleaster flower and hedgehog spines. It will provide protection. (Prov. 283, f. 39a17)

ägär mažlümniň tuğuti dušwär bolub balası čiqmasa aň tuwaqını köydürüb kirfă täräsigä yöräkib köydürüb islasa balası āsän kälür

If a woman's childbirth is difficult and the baby won't come out, one should burn a horse hooves, roll it up in hedgehog skin, and burn it to make smoke. Then the delivery of the child will come easily. (Prov. 283, f. 47b9-10)

ägär kiſigä tämär'ätkü čiqlsa kirfänij ötini sürütsä daf^c bolur

If a person has eczema, it will get better if one smears it with hedgehog's gallbladder. (Prov. 283, f. 54b16)

ägär mažlüm kiſi tuğmas bolsa qeri kirfani öltürüb issigçina farjiga yaqib oltursa ötini šul kirfänij yağı birlä [köydüsä] äri altiga sürtüb jímäg [qilur] farzand bolur

If a woman is infertile, one should kill an old hedgehog, while it is still hot, and then put it on the genital area. (After that) the woman should sit (and wait) for a while. Then, one should burn the gallbladder of the hedgehog with its fat. If her husband smears this onto her pubic area and makes love with her, she will have a son. (Prov. 283, f. 58a12-14; see also Prov. 283, f. 26b15-27a1)

ägär kiſi bürgädin qutulay desä häriniň könäkini aň tuwaqını kirfänij tikänidä islasa bürgä wujūdini yoq qilur

If a person wants to get rid of fleas, (s)he should smoke honeycomb from bees and the hooves of a horse as well as the spines of a hedgehog. Then, the fleas will leave the body. (Prov. 283, f. 61a1-2)

ägär kiſi tämär'ätkü čiqlsa kirfinij qanini ötini čafsa daf^c bolur

If someone has eczema and daubs the blood and gallbladder of a hedgehog onto it, it will go away. (Prov. 283, f. 64a7-8)

ägär şahwat käm bolsa kirfi şakar birlä fuşurub yesä şahwati ziyäda bolur

In case of little potency, one should cook the hedgehog with sugar and eat it. His potency will increase. (Prov. 283, f. 64b16)

ägär kiſi zimistända kirfi yesä mi'da qawiyy bolur balğamni daf^c qilur ağzi bad-büy bolmas

If a person eats hedgehog at wintertime, the stomach will be strong, the phlegm will go away and the person will get rid of bad smell from the mouth. (Prov. 283, f. 66a7-8)

ägär kiſi kirfi ötini közgä tar[t]sa rōšān bolur

If someone takes the gallbladder of a hedgehog and applies it onto the eyes, they will become bright. (Prov. 283, f. 67a5)

Prov. 351: A Practical Handbook of Medicine and the Treatment of Different Diseases

ägär kimärsä kirfă ötini tämärätkügä wä yā čaqaǵa sürütsä daf^c bolğay

If someone rubs the gallbladder of a hedgehog onto eczema or a wound, it will heal. (Prov. 351, f. 17b2-3)

ägär kirfinij yüräkini yesä yüräklig bolğay

If someone digests the heart of a hedgehog, (s)he will become brave. (Prov. 351, f. 20a5-6)

naw^c-i dıgar yüräkid[ä] zahmat bolsa kirfini fişurub yesä fi[l]-häl daf^c bolğay ägär kimärsänij közi terä bolsa kirfi(ni)nj ötini közgä sürütsä közi rōšān bolğay

Here is yet another (medicament): if someone has heart pain, (s)he should roast the heart of a hedgehog and eat it. Then it will get better right away. If someone has watery eyes (*epiphoria*), his/her vision will become clear, if (s)he rubs the gallbladder of a hedgehog onto the eyes. (Prov. 351, f. 21a7-9)

farjiga gōšt tolǵan bolsa eri birlä jímäc qılǵanda ol mažlümniј kindigi dä aǵriq paydā bolǵay eriniј šäh-wäti qošmas anıj ‘iläjı qara inäknıј ötini qučqač ötini kirfä ötini ǵazniј ötini aǵdıränı baliǵni mujammac qılıb üč kečä šäf etib qoymaq käräk andin jímäc qılsa hämila bolǵay

If there are polyps in a woman's vagina: when she makes love with her husband, pain will appear in the navel of that woman, and her husband's sexual desire will not be compatible to hers. The recipe (for this) is to mix the gallbladders of a black cow, of a sparrow (or other small bird), of a hedgehog, of a goose, and *aghdirani* fish. It is necessary to apply it as a suppository for three nights. If she then makes love (with her husband), she will get pregnant. (Prov. 351, f. 43a3-43a8)

Prov. 354: A medical treatise

ägeär kiši kirfäninı yaǵını öt(n)i bilän qosub tämär’ütkügä sürtsälär däf bolur

If someone mixes the fat and bile of a hedgehog and smears it on the skin, eczema will go away. (Prov. 354, f. 51b10-11)

Illustrations

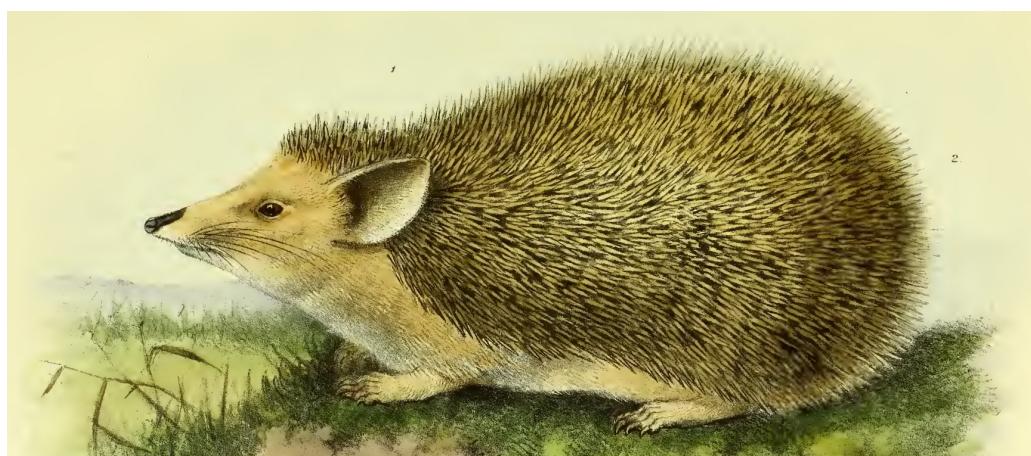


Figure 1: Long-eared hedgehog, *Hemiechinus auritus*, from Yarkand (Blandford & Dobson 1879: Plate I)



Figure 2: Stamp from Kazakhstan 2012



Figure 3: *Kirpi kangalı*, *Cirsium echinus* (M.Bieb.), in Giresun, Turkey (Photo Zeynel Cebeci, Wikimedia Commons CC BY-SA 4.0)