Veterinary folk remedies in Japan

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Summary: The author reviews Japanese veterinary folk remedies through an examination of the literature. Animal husbandry and the development of veterinary medicine are considered briefly, and a number of early veterinary texts are described. Details are given of folk remedies - including herbal medicine, acupuncture and moxibustion, and incantation - which were still in use twenty years ago.

KEYWORDS: Acupuncture - Herbal medicine - Incantation - Japan - Moxibustion - Popular medicine - Veterinary medicine.

INTRODUCTION: ANIMAL HUSBANDRY IN JAPAN

Nowadays, a variety of domestic animals are kept in Japan for a number of different purposes: cattle, swine and poultry are popular species of livestock for the production of meat, milk and eggs; dogs and cats are becoming important as companion animals; horses are bred mainly for racing; small numbers of sheep and goats and bees are raised for their produce; and several species of fish are raised artificially.

In ancient times, the Japanese liked to hunt wild animals (e.g. boar) and catch fish for food, but domesticated cattle, horses, swine, chicken and sometimes dogs were also served as food. However, after the introduction of Buddhism in AD 538, imperial edicts were frequently published prohibiting the slaughter of cattle, horses, dogs and poultry, and forbidding consumption of the meat of these animals. Consumption of milk and eggs was still permitted and, in some cases, the meat of hunted wild animals could be consumed as 'medicine'. Horses were used mainly for military purposes, while cattle were employed to carry weights and to haul vehicles and equipment (3, 9, 11).

DEVELOPMENT OF VETERINARY MEDICINE

Kojiki, the oldest historical book in Japan, relates the following mythical anecdote which is considered to be the earliest description of veterinary activity in the country:

‘One day, a god named Ookuninushi-no-Mikoto came to the beach in the province of Inaba [present day Tottori prefecture] and found a hare which was crying. Its hair had been removed and the skin was reddened. The hare had come to Inaba from one of the Oki islands by jumping on the back of wani [sharks] which formed a line on the sea. On
the island, the hare had asked the sharks to count their numbers and compare the population with that of the hare. The hare jumped onto the backs of sharks, counting their numbers, and said to the last shark in the line, "I cheated you! my purpose was to come to Inaba and try to run away!" Then the sharks became angry and plucked the hare. Ookuninushi-no-Mikoto suggested that the hare wash its body with fresh water and then wrap itself in flowers from gama [bullrush, *Typha latifolia* L.], and the hare later recovered' (16, 32, 41).

In AD 595, Eji, a Korean Buddhist priest, came to Japan and taught the art of veterinary medicine to Tachibana-no-Ihitsu, whom Prince Shōtokutaishi had ordered to study this art. Later, a school of veterinary medicine called 'Taishi-ryū' was established, based on the knowledge taught by Eji. In 804, Taira-no-Nakakuni visited China and studied Chinese veterinary practices. The school based on the knowledge of Taira-no-Nakakuni was called ‘Nakakuni-ryū’, later changing its name to ‘Kuwajima-Ryū’ (3, 4, 23, 32, 36).

**VETERINARY BOOKS**

Until the Meiji Restoration in 1868, Japanese veterinary medicine was based on Korean and Chinese methods (3, 4, 23, 32), and many books were written on the subject of horses, cattle and dogs. Details of some of these works are presented below.

In 1267, a scroll known as *Bai Sōshi, Umai no Sōshi* or *Bai Zukan* ('Scroll of horse doctors') was made on the instructions of Sei-a, a priest and horse doctor (29). Sei-a wished to teach his veterinary knowledge to his son Tadayasu through this scroll. The scroll, which is said to have been painted by a painter belonging to the Tosa school, contains drawings of magnificent horses, portraits of Hakuraku and nine other well-known horse doctors of the time, and lists seventeen kinds of herbs useful for the treatment of horses (19, 22, 23, 32) (Table I).

In 1604, the twelve volumes of *Kana-Anki-Shū* (a Japanese translation of a Chinese veterinary work) were written and published by Dōha Hashimoto (6). This work contains illustrations of the anatomy of horses (Fig. 1) and many recipes for the treatment of equine diseases, based on Chinese principles of veterinary medicine. One such recipe, for *taisen san* (colic dispersing powder), is shown in Figure 2. The text in Figure 2 reads as follows:

'The following ingredients should be ground into a fine powder then mixed with liquid made from equal amounts of sake (rice wine) and water, and administered to horses suffering from colic, according to their body size: *kikkaku* (seed of citrus fruit), *tōnin* (seed of peach), *sanshishi* (*Gardeniae fructus*), *shuyu goshuyu* (*Evodiae fructus*), *nikkei* (root of *Cinnamomum loureirii*), *chimo* (root of *Cyperaceae*) and *uikyō* (*Foeniculi fructus*). The weight of ingredients used to prepare *taisen san* for colic and the dosage of each ingredient are given.

Acupuncture and moxibustion were also used.

Other texts published around this time include the following: *Yōba-Higoku-Shū* ('Secret methods essential for horses') (in 1688); *Ryōyaku-Baryō-Benkai* ('Explanation of useful drugs for the treatment of equine diseases') (in 1705); and *Buba-Hitsuyō* ('Essentials for military horses') (in 1717) (4, 19, 23, 32).
### TABLE I

**Herbs mentioned in Bai Zukan**

(7, 8, 15, 18, 19, 22, 29)

<table>
<thead>
<tr>
<th>Old Japanese name</th>
<th>Modern Japanese name</th>
<th>Possible scientific name</th>
<th>Possible principal effects/uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yakushisō</td>
<td>Funabarásō</td>
<td><em>Youngia denticulata</em> (Houtt) Kitam.</td>
<td>antipyretic, diuretic</td>
</tr>
<tr>
<td>Oyakusō</td>
<td>Otogirisō</td>
<td><em>Hypericum erectum</em> Thunb.</td>
<td>styptic, healing</td>
</tr>
<tr>
<td>Shazensō</td>
<td>Oobako</td>
<td><em>Plantago asiatica</em> L.</td>
<td>bronchitis, diuretic</td>
</tr>
<tr>
<td>Mokusōzen</td>
<td>Bukuryō</td>
<td><em>Polyporaceae</em></td>
<td>anti-tumor</td>
</tr>
<tr>
<td>Atowasaki</td>
<td>Yadorigi</td>
<td><em>Loranthaceae</em></td>
<td>tonic</td>
</tr>
<tr>
<td>Kusanoō</td>
<td>Kinmizuhiki</td>
<td><em>Agrimonia pilosa</em> Ledeb.</td>
<td>styptic, antidote to snake-bite</td>
</tr>
<tr>
<td>Koromogusa</td>
<td>Karamushi</td>
<td><em>Boehmeria</em> spp.</td>
<td>antipyretic, styptic</td>
</tr>
<tr>
<td>Hotokenomae</td>
<td>Ooguruma</td>
<td><em>Inula helenium</em> L. (<em>Helenium grandiflorum</em> Gilib)</td>
<td>anthelmintic</td>
</tr>
<tr>
<td>Iroiro</td>
<td>Hakobe</td>
<td><em>Stellaria</em> spp.</td>
<td>enteritis</td>
</tr>
<tr>
<td>Chōshōsō</td>
<td>Bashō</td>
<td><em>Musa basjoo</em> Sieb.</td>
<td>diuretic, anti-cold</td>
</tr>
<tr>
<td>Itachishiri koi</td>
<td>Yabutabako</td>
<td><em>Carpesium abrotanoides</em> L.</td>
<td>expectorant, antidotal, diuretic</td>
</tr>
<tr>
<td>Mezusō</td>
<td>Inokozuchi</td>
<td><em>Achyranthes</em> spp.</td>
<td>analgesic, styptic</td>
</tr>
<tr>
<td>Kanzōden</td>
<td>Kawarayomogi</td>
<td><em>Artemisia capillaris</em> Thunb.</td>
<td>anti-spasmodic, diuretic, cholagogue</td>
</tr>
<tr>
<td>Akomegusa</td>
<td>Hirumushiro</td>
<td><em>Potamogeton distinctus</em> Benett</td>
<td>anti-intoxication</td>
</tr>
<tr>
<td>Denchisō</td>
<td>Ooinutade</td>
<td><em>Polygonon nodosum</em> (Pers.) Kitam.</td>
<td>anti-inflammatory</td>
</tr>
<tr>
<td>Ten-esō</td>
<td>Mamushigusa</td>
<td><em>Arisaema</em> spp.</td>
<td>expectorant, anti-spasmodic</td>
</tr>
<tr>
<td>Hotokenoza</td>
<td>Jigokunokama nofuta</td>
<td><em>Lamium amplexicaule</em> L.</td>
<td>analgesic</td>
</tr>
</tbody>
</table>

In 1725, several Western veterinary books are believed to have been introduced into Japan. In the years 1633-1858, Japan had severed diplomatic relations with all foreign countries except China and the Netherlands. This situation is called *sakoku* (seclusion). During this period, information from overseas countries on all matters, including veterinary medicine, entered Japan through Dejima, Nagasaki where the trading factory of the Dutch East India Company (*Verenigde Oostindische Compagnie*) was located. In 1725, Hans Jurgen Keijser, an equestrian, came to Dejima with five Western horses and some veterinary books written in Dutch, then visited Edo (present-day Tokyo) together with the staff of the company to which he belonged, to meet with the Shōgun. These books were translated into Japanese, but these translations essentially belonged to the government and were not published (4, 19, 20, 23, 32, 41).
Recently, the original of one of these translated books, Oranda Ba Ryouji no Hon Wage, was found to be Toevlugt of Heylsame Remedien voor alderhande Siektens en Accidentien die de Paerden Soude konnen overkoomen, written by P.A. van Coer and published between 1688 and 1822 in the Netherlands (13, 14, 20).

In 1852, Kaiba-Shinsho (‘New book on the anatomy of the horse’) was written by T. Kikuchi (20, 23, 32).

WESTERNISATION OF JAPAN

In 1868, the Meiji Restoration occurred, and the Westernisation of Japan commenced in various fields, including politics, law, technology, agriculture, and both human and veterinary medicine. Education in Western veterinary medicine began shortly after the Meiji Restoration, with the establishment by the Government of veterinary courses at the schools of Tokyo and Sapporo (1, 4, 23, 32, 41). Later, other veterinary schools (both state-owned and private) were established. In the early stages, students were educated in Western methods by teachers invited by the Japanese
Recipe for *taisen san*, a remedy for colic of horses in *Kana-Anki-Shū* (6)

Government from France, the United Kingdom (35) and Germany. For a time, teachers from foreign countries used the textbooks of their own countries, but textbooks in Japanese were later made available. For example, in 1887 the sixteen volumes of *Kachiku-Ihan* ('Standard textbook for animal medicine') in Japanese were revised by a German professor, Johannes Ludwig Janson. In 1885, regulations were promulgated regarding the licensing of veterinarians and *Jûi-shi* (veterinarians) began work in Japan.

**FOLK REMEDIES FOR ANIMALS**

According to a survey conducted in the 1970s, traces of various folk remedies for animals could still be found in districts throughout Japan. Such folk remedies provide evidence of traditional methods for the treatment of animal diseases.
HERBAL MEDICINE

Various remedies based on plant and sometimes animal products were used to treat animal diseases in the past, as evidenced in Bai Zukan and Kana-Anki-Shû (6, 29).

Even now, at least ten veterinary drugs based on herbs are registered and marketed in Japan.

ACUPUNCTURE AND MOXIBUSTION

Acupuncture is a method used to remedy abnormalities in the body, or to contribute to the healing of diseases. Mechanical stimulation is provided by using a needle to pierce the surface of the body. Acupuncture is employed in both human and veterinary medicine. The stimulation is administered at specific points called tsubo (‘acupuncture point’ or ‘effective spot’), which are situated on keiraku (meridians). The needles are made of gold, silver, iron, steel, copper, and mostly stainless steel today, and are of various lengths and diameters.

In moxibustion, thermal stimulation is used instead of a needle. A piece of moxa (cone of the leaf-down of Artemisia moxa) is placed on the skin at the tsubo and the moxa is then burnt (2, 3, 4, 28, 38).

In veterinary medicine, acupuncture and moxibustion have mainly been used for horses and cattle. These techniques are now being re-evaluated, and attempts are being made to use acupuncture, mainly for anaesthesia of horses, cattle, swine, dogs and cats (10, 27).

INCANTATION

Horses attacked by the god Daiba

In villages on the western side of the Akagi mountain (Gunma prefecture), horse owners were very afraid of the god Daiba, as horses said to be possessed by this god die instantly. In most cases, horses are possessed or struck by this god outside the stable, when the animals are being packed or are walking on a mountain path. Even when the air is calm, a single blast of ‘evil’ wind is sufficient to make the horse begin to tremble, sometimes leading to death (39). In other districts, Daiba appears as a goddess, dressed in scarlet and mounted on a small, multi-coloured horse (17). When horses are attacked by Daiba, it is believed that if the horse owner cuts the ear of the horse with a knife to draw blood, very occasionally the horse may be saved, as Daiba is said to dislike the sight of fresh blood (39). This treatment is reminiscent of the Teutonic folk remedy in the ‘elf-shot doctrine’ (34).

Buddha and other guardian deities of horses and cattle

Following the introduction of Buddhism into Japan in the 6th century, Shintoism and Buddhism coexisted in the country. Dainichi Nyorai (Buddha) is a guardian deity for cattle, Batô-Kannon (a Buddhist saint whose crown features a depiction of the head of a horse) is a guardian deity of the horse. Stone statues of Batô-Kannon are found in many places in Japan, and they are erected at crossroads on mountain passes, at the tops of
mountains, and in places where horses have died from illness or injury. A pair of straw sandals for cattle may be dedicated to Dainichi Nyorai by praying for the health of cattle; in the past, straw sandals were widely used in Japan to protect the hooves of horses and cattle.

In the temple of Batô-Kannon in Kamioka, Bushu (present-day Saitama prefecture), sasa (bamboo grass) and ema (a votive tablet of a horse) are presented on a festival day in February as a charm against Daiba (Fig. 3). Sometimes, an ema was dedicated to the temple by horse owners praying for the health of horses (Fig. 4). The bamboo grass is nailed at the entrance to the stable and then given to a sick horse. In the Entsu-ji temple in Gotenba (Shizuoka prefecture), bamboo grass is still presented on 18 April, the festival day of the temple (39). Many horse and cattle owners worship at the temple and receive some bamboo grass. At the Umagami-jinja shrine in Ostu (Shiga prefecture), an apron (wide girth) for horses would be presented to ward off Daiba (37). In some districts of Kyushu (south-east Japan), glittering abalone shells were hung in the entrance of the stable or cattle shed as a charm to protect horses and cattle (26, 39).

In the 12th century AD, the god Bareki-Shin, the guardian deity of the stable, was introduced from China. In statues, the god is depicted trampling a wagtail under one foot and a monkey under the other. After the introduction of this god into Japan, the monkey became a guardian deity of horses (17, 21, 25, 26, 30, 39).
FIG. 4

_Ema_ (votive tablets for horses) dedicated to _Batô-Kannon_
_at the temple in Kamioka, Saitama_

The tablets are placed on the wall under the ceiling of the *ema-do* (*ema* house). The *ema* with seven horses on the right of the photograph was dedicated in 1896.

**Blood-letting**

In addition to the use of this practice as treatment following attacks by *Daiba*, blood-letting was widely performed for the maintenance of the health of horses and cattle in various districts of Japan. In a particular area of a village, a *wakuba* (the name used in Miyagi prefecture) (30) or *chiaiba* (in Kōchi prefecture) (25) - an enclosure composed of four log pillars with or without a roof - was constructed. At a definite season of the year (e.g. before the busy season for farmers), horses and cattle would be brought to the enclosure, and the *hakuraku* or *bakurô* (horse doctors), or sometimes younger people of the village, would conduct blood-letting and hoof cutting.

**Treatment of canine diseases**

Few historical documents are extant on the subject of canine medicine (31). *Kenku Yōchiku Den*, describes methods of treating canine diseases (12). Cold water is effective for intoxication by *machin*, an alcaroid of _Strychnos_ sp. For mange, washing with an extract of good quality tea is said to be effective. For a wound, the feeding of boiled adzuki beans or soya beans (or the water used for boiling) is recommended (33, 40).

For infestations by fleas and lice, application of camphor is advised. River shrimp or sea shrimp should never be fed to dogs, as this causes the legs of the animals to become
weak. If shrimps are fed to dogs and the animals are intoxicated, large quantities of the water used to boil black soya beans should be administered. Puppies should be treated in a similar manner to children. Rabies is mentioned in several books, e.g. Kenku Yôchiku Den (12), Kyôken Kôshô Jihô (24) and Keiku Shôkô (5).

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MÉDICATIONS VÉTÉRINAIRES POPULAIRES AU JAPON. – O. Katsuyama.

Résumé : L’auteur passe en revue les remèdes vétérinaires populaires au Japon tels qu’ils sont rapportés par la littérature. Il donne un aperçu de l’élevage et du développement de la médecine vétérinaire et présente un certain nombre de documents anciens écrits à ce sujet. L’article décrit certaines médications traditionnelles, notamment la phytothérapie, l’acupuncture, la moxibustion et l’incantation, encore en usage il y a une vingtaine d’années.


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REMEDIOS VETERINARIOS POPULARES EN EL JAPÓN. – O. Katsuyama.

Resumen: El autor pasa revista a los remedios veterinarios populares del Japón tal como aparecen en la literatura. Considera brevemente la ganadería y el desarrollo de la medicina veterinaria y presenta textos antiguos sobre el tema. Describe, por último, algunos tratamientos tradicionales, en particular la fitoterapia, la acupuntura, la moxibustión y el encantamiento, que todavía estaban en práctica hace unos veinte años.


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REFERENCES


