

Traditional Chinese Veterinary Medicine—Historical Background and Contemporary Approaches

Gergana Nikolova Balieva¹, Laska Kostadinova²

^{1,2}Trakia University, Faculty of Veterinary Medicine, Department of Veterinary Legislation and Management, Stara Zagora 6000, Bulgaria

Abstract: *Historically, the medicine for humans and medicine for animals have common origin and have diverged and improved, based on practices as application of naturally derived substances from plant, animal and mineral origin; massages; dietary therapies and others. Having proven their effectiveness through the centuries and generations, these techniques are also known as Traditional Chinese Medicine (TCM) modalities. The historical development of TCVM is traced from its very beginning till nowadays and its contemporary projections as CAVM are studied. The leading international and national organizations, promoting traditional medicine are pointed out. The worldwide acceptance of TCVM is investigated with some reflections on the possibilities for integration of traditional and conventional veterinary medicine.*

Keywords: Traditional Chinese Veterinary Medicine; Complementary and alternative veterinary medicine; Veterinary Acupuncture

1. Introduction

Traditional Chinese Medicine (TCM) is popularly described as a broad range of medicine practices sharing common concepts which have been developed in China and are based on a tradition of more than 2,000 years, including various forms of herbal medicine, acupuncture, massage (Tui na), exercise (qigong), and dietary therapy. Traditional Chinese Veterinary Medicine (TCVM) appears to be a branch of the TCM as historical evidences show that the concepts and practices used in humans were developed and applied to treat animal health disorders too [32] – for example practicing veterinary acupuncture on army horses. TCVM and especially Veterinary Acupuncture (VA) subsequently spread to other countries outside the mainland China, due to the work of pioneers like Soulie de Morant, who translated Chinese works into French which later spread to Germany and Austria [32].

Both TCM and TCVM are primarily used as a complementary alternative medicine approach for treatment or prevention of health disorders. Some of those alternative techniques were used to treat animals for centuries and nowadays a wide segment of the public is getting aware of the therapeutic effects of practices as veterinary acupuncture, homeopathy, application of plant, animal and mineral derived substances, etc. Complementary and alternative veterinary medicine (CAVM) is described as "...a heterogeneous group of preventive, diagnostic, and therapeutic philosophies and practices. The theoretical bases and techniques of CAVM may diverge from veterinary medicine routinely taught in North American veterinary medical schools or may differ from current scientific knowledge, or both." [6]. The general attitude of the veterinary profession towards CAVM is still skeptic, but Habacher et al. [18] studied the effectiveness of acupuncture in veterinary medicine and stated that the number of owners who seek acupuncture as a therapy for their animals had increased.

2. Aim and Objectives

Tracing back the origin and development of the Traditional Chinese Veterinary Medicine (TCVM), with the present study we investigate the extent to which TCVM modalities have been introduced and applied to the contemporary science-based veterinary medicine. For this purpose the role of international veterinary organizations for alternative medicine is analyzed, for promotion of techniques as acupuncture, homeopathy, etc. The possibilities for integration of some of the TCVM techniques in the veterinary practice are discussed as well.

3. Material and Methods

For the purpose of the study we made a content analysis [30] of information sources (books, reviews, manuals and web sites of international organizations for alternative medicine) on development of TCM and TCVM, particularly veterinary acupuncture and their acceptance worldwide.

4. Results and Discussion

4.1. History of Traditional Chinese Veterinary Medicine

According to a legend, the history of traditional Chinese veterinary medicine could be traced approximately 10 000 years ago back to the Three Emperors Era [26]. It said that Emperor Fuxi introduced the way of domestication of animals in ancient China and put the foundations of animal husbandry and veterinary medicine.

The development and improvement of medical and veterinary culture broadened through the centuries during the reign of different Chinese dynasties. Historical evidences show that under the administration of West Zhou dynasty (1111-771 BC) a Veterinary Department was established as animal health and human health were considered equally important [26].

A lot of medicinal texts, describing different animal

therapies, were written even before the beginning of the Common Era, among which could be pointed Baile Zhen Jing (Baile's Canon of Veterinary Acupuncture) at the time of Qin Mu-Gong (659-621 BC), a book entitled Lie Xian Zhuan (The Legend of the Immortals), and the most detailed text on animal acupuncture - the Huang Di Nei Jing (The Yellow Emperor's Classic of Internal Medicine), which was published during the Qin and Han period (221 BC-AD 220) [19, 27, 32].

Defining itself as a separate branch, the traditional Chinese veterinary medicine flourished in the period of Common Era. Important textbooks, especially on the matter of horse treatment, were published during the reign of West Jin dynasty (AD 265-317) - Zhou Hou Bei Ji Fang (Pocket Book for Emergency Therapies), listing treatment of sunstroke in horses by blood-letting at the Weijian point and other points, and during the Sui dynasty (AD 581-618) - Ma Jing Kong Xiu Tu (Atlas of Equine Meridians and Acupoints) [15].

Lin & Panzer [26] reported that a highly-developed veterinary service system was established during the Tang dynasty (AD 618-907), together with the foundation of Tai Pou Shi (Tai Pou College) for comprehensive Chinese veterinary education. For the purpose of education a fundamental textbook was used at the college - Si Mu An Ji Ji (A Collection of Ways to Care and Treat Horses), combining the knowledge and therapies, described in the Baile's Canon of Veterinary Acupuncture and the texts after that.

Methods and therapies as acupuncture and moxibustion, especially in horses, were paid great attention and profoundly studied and described during the Song dynasty (AD 960-1279), namely Ming Tang Jiu Ma Jing (Ming Tang's Canon of Equine Moxibustion), and the Yuan dynasty (AD 1279-1368) - Quan Ji Tong Xuan Lun (a dissertation on the treatment of sick horses) [17, 27].

During the centuries that followed, the TCVM techniques developed also for other animal species. Thus in 1758, under the administration of Qing dynasty (AD 1644-1911) the Chuan Ya Shouyi Fang (Compiled Veterinary Formula) was written, giving information on herbal treatment of horses, cattle, goats, sheep, dogs, cats, deers, elephants, chickens, birds, goldfishs and turtles [26]. Furthermore, according to the same authors, another book published in 1815 - Niu Yi Jin Jian (Golden Mirror of Bovine Medicine) – explained in details the characteristics and therapeutical methods for diseases in buffalo, pigs, horses, sheep, dogs, and cats.

The last years of the administration of Qing dynasty (AD 1644-1911) were marked with definitely new for the Chinese people system of veterinary medicine by the establishment in 1904 of the first Western-style veterinary school “Bei Yang Equine Medical School” in Hebei province [35]. As a consequence of the on-going process of modernization of China, the Western veterinary medicine appeared to be the leading trend in the animal health care system and resulted in improved control of animal diseases.

The progressively and frequently changing political,

economic and social conditions in China during the first half of the 20th century gave their reflection on all spheres of public life. Concerning TCVM, Cohen [12] reported that its modalities remained popular among the masses, but during the Cultural Revolution (1966-76), the communist government regarded it as an outdated artifact of a “non-scientific” tradition and banned TCM. With the end of the Cultural Revolution, traditional Chinese medicine, including veterinary medicine, revived throughout China. In 1979, a group of practitioners founded the National Association for Chinese Medicine, later editing and republishing many TCM texts [12].

4.2. Integrated Medicine/Complementary and Alternative Medicine

After its revival, TCM continued its development in a new direction – it was practiced side-by-side with Western medicine in many Chinese hospitals. Furthermore, medical practitioners all over China received knowledge in traditional and modern medicine [12, 33].

The contemporary appearance of the traditional medical techniques and modalities is now known under the term Complementary and Alternative Medicine (CAM), respectively Complementary and Alternative Veterinary Medicine (CAVM) in USA, and as Integrated Medicine in other countries.

As described by WHO, CAM refers “...to a broad set of health care practices that are not part of that country's own tradition and are not integrated into the dominant health care system” [38]. In the modern world CAM and CAVM are getting more and more popular as medical practices, both among the professionals and among the patients.

Scientific support to complementary therapies from the Chinese medicine is given by Wynn and Marsden [40] who discuss traditional diagnoses and give suggestions for alternative therapeutic options for more than 130 common conditions of cats and dogs. Such therapy, especially nutritional supplements, Lana et al. [24] reported to be used in dogs and cats with cancer, with 65% of the cases showing some improvement. However, contemporary and alternative medicine is described to lie somewhere “between evidence and absurdity” [31]. As so, it is a personal responsibility of the well experienced and scientifically educated veterinary practitioners to choose CAVM modalities for the benefit of their patients.

Some of the reasons for choosing alternative therapy for animal health problems that are usually solved with conventional medicine are concerned with the economic aspects of the treatment. Confessor et al. [13] pointed out that traditional medicine persisted in rural regions due to factors as high costs and inaccessibility of veterinary care. In favour of the CAVM techniques appeared to be the study of Varshney and Naresh [36] who evaluated the application of homeopathic complex in the clinical management of udder diseases in buffalos. They stated that homeopathy may be effective and economical in the management of udder health problems in that species.

As some of the modalities of traditional medicine survived through the time as an integral part of everyday human life, some authors discovered that similar to the TCVM techniques were practiced in other regions of the world. In regard to this, Confessor et al. [13] studied the use of animal-based remedies (fat, feather, leather, bones, horns, milk, eggs), derived from 11 species (mammals, reptiles and birds) for treatment or prevention of animal diseases in semiarid region in Northern Brazil. These practices in fact represent the so called Ethnoveterinary Medicine (EVM) or the folk medicine of the country which is used as an alternative way for animal health care by the farmers. The term Ethnoveterinary Medicine is defined as "people's knowledge, abilities, methods, practices and beliefs concerning animal health care" [13]. In favour of EVM appeared to be also the study of Leonti & Casu [25] who investigated the perspectives in ethnopharmacology with regards to traditional medicine.

4.3. The international recognition of TCM/TCVM

Rogers [32] reported that modern veterinary acupuncture developed in Europe due to the efforts of pioneers like Kothbauer (Austria), Milin (France) and the late Westermayer (Germany). Americans got aware of the value of TCM in 1972, during the visit of President Nixon's staff to China, when the staff reporter became ill and practitioners treated him effectively with TCM. Later, American pioneers, coming to the field of acupuncture, included Altman, Bressler, Cain, Jaggar, Klide and the late Grady Young [32].

According to Cohen [12], since the 1970s, Chinese hospitals have trained students from more than 100 countries in the principles of traditional medicine. The same author reported that in 1980, the World Health Organization released a list of 43 types of pathologies that can be effectively treated with acupuncture. A new report was published later, in 2003, within which more than one hundred indications were discussed and divided into four groups concerning the strength of existing evidence about the effectiveness of acupuncture [39]. The results of 255 trials published before the end of 1998 or beginning of 1999 were included.

Important role for promotion of CAVM, especially veterinary acupuncture (VA), is played by many international and national organizations for integrated medicine. The modalities covered by them and their mission for promoting CAVM, are presented in Table 1.

Table 1: International and national organizations for TCVM/CAVM

Name of organization	Geographic area	Field covered
International Veterinary Acupuncture Society (IVAS) [21]	Worldwide	Veterinary Acupuncture
World Association of Traditional Chinese Veterinary Medicine (WATCVM) [37]	Worldwide	All aspects of TCVM
Chi Institute of Traditional	USA	All aspects of

Chinese Veterinary Medicine [11]	Spain Australia China	TCVM: -Veterinary Acupuncture -Veterinary Herbal Medicine -Veterinary Tui-na -Veterinary Food Therapy
American Academy of Veterinary Acupuncture (AAVA) * - member of the AVMA House of Delegates [1]	USA	-Veterinary Acupuncture -Traditional Chinese Veterinary Medicine -Traditional Eastern Medicine
American Association of Traditional Chinese Veterinary Medicine (AATCVM) [2]	USA	All aspects of TCVM: acupuncture, Chinese herbal medicine, <i>Tui-na</i> and Food therapy
American Holistic Veterinary Medical Association (AHVMA) - member of the AVMA House of Delegates [3]	USA	Holistic Veterinary Medicine, including: - <i>Acupuncture</i> - <i>Aromatherapy</i> - <i>Chiropractic</i> - <i>Flower Essences</i> - <i>Herbal Medicine</i> - <i>Homeopathy</i> - <i>Low Level Laser Therapy</i> - <i>Mega-nutrient Therapy</i> - <i>Nutritional Therapy</i> - <i>Osteopathy</i> - <i>Rehabilitation and Sports Medicine</i> -Stem Cell Therapy
Association of British Veterinary Acupuncturists (ABVA) * [4]	United Kingdom	Veterinary Acupuncture
Dutch Veterinary Acupuncture Society (SNVA) * [14]	The Netherlands	Veterinary Acupuncture
German Veterinary Acupuncture Society (GerVAS) * [16]	Germany	Veterinary Acupuncture
Nordic Veterinary Acupuncture Society (NoVAS) * [29]	Finland Norway Sweden Denmark	Veterinary Acupuncture
Italian Veterinary Acupuncture Society (SIAV/ItVAS) [22]	Italy	Veterinary Acupuncture
Austrian Veterinary Acupuncture Society (AVAS) * [8]	Austria	Veterinary Acupuncture
Association of Veterinary Acupuncturists of Canada (AVAC) * [5]	Canada	Veterinary Acupuncture
Brazilian Association of Veterinary Acupuncture (ABRAVET) * [10]	Brazil	Veterinary Acupuncture
Australian Veterinary Acupuncture Group (AVAG) * [7]	Australia	Veterinary Acupuncture

Belgium Veterinary Acupuncture Society (BEVAS) * [9]	Belgium	Veterinary Acupuncture
IVAS España (IESP) * [23]	Spain	Veterinary Acupuncture
Swiss Veterinary Association for Complementary and Alternative Medicine (CAMVET) * [34]	Switzerland	Complementary and Alternative Medicine
International Academy of Veterinary Chiropractic (IAVC) [20]	Europe	Animal Chiropractic

* *IVAS Affiliate Organization*

The International Veterinary Acupuncture Society (IVAS) which was founded in 1974 with 80 members, now appears to be the biggest organization for VA outside the East. Today, with more than 1800 members from all over the world, with a lot of partners and affiliate organizations, IVAS sets standards in international training in VA. The overall aim is to provide a sound basis for the implementation and integration of alternative medicine into the veterinary practice and to ensure animal health and welfare [21]. In order to provide knowledge and skills in CAVM for veterinary graduates, a discussion has started on the necessity of inclusion of complementary medicine in veterinary curriculum. For this purpose, a survey was carried out by Memon and Sprunger [28] among AVMA-accredited colleges and schools of veterinary medicine – replies were received by 26 schools in USA, 2 in Canada, 3 in Australia and New Zealand, 3 in Europe. As a result the authors reported that all respondents indicated students should be aware of CAVM modalities because of strong public interest and because practitioners should be able to address client questions from a position of knowledge.

5. Conclusion

Traditional Chinese Veterinary Medicine has originated, developed and survived through the ages to serve nowadays as a complementary and alternative approach of the animal health care system. A lot of research has been done to put the effects of TCVM on scientific basis and due to the efforts of many individual veterinary practitioners and international organizations, it is obvious that conventional medicine and traditional medicine can be integrated to create a synergistic system of medicine for animals.

As many studies show, TCVM/CAVM can help to reduce the need for high doses of drugs, administered by the conventional medicine (antibiotics, hormones and others). On the other hand, Western medicine can be applied to support CAVM in cases of serious infections and other specific pathological conditions. However, their integration seems to be hampered by limited knowledge, skepticism and reluctance to try new methods. These difficulties can be overcome if promotion of CAVM is supported through education, research and funding by interested organizations, universities, government.

References

- [1] American Academy of Veterinary Acupuncture (AAVA), 2016. [Online]. Available: <http://www.aava.org/> [Accessed 15.01.2016].
- [2] American Association of Traditional Chinese Veterinary Medicine (AATCVM), 2016. [Online]. Available: <http://www.aatcvm.org/index.php/en/> [Accessed 15.01.2016].
- [3] American Holistic Veterinary Medical Association (AHVMA), 2016. [Online]. Available: <http://www.ahvma.org/holistic-veterinary-therapies/> [Accessed 15.01.2016].
- [4] Association of British Veterinary Acupuncturists (ABVA), 2016. [Online]. Available: <http://www.abva.co.uk/> [Accessed 15.01.2016].
- [5] Association of Veterinary Acupuncturists of Canada (AVAC), 2016. [Online]. Available: <http://www.avacanada.org/> [Accessed 15.01.2016].
- [6] American Veterinary Medical Association (AVMA), 2013. “AVMA Guidelines for Complementary and Alternative Veterinary Medicine”. [Online]. Available: <https://www.avma.org/KB/Policies/Pages/AVMA-Guidelines-for-Complementary-and-Alternative-Veterinary-Medicine.aspx> [Accessed 20.11.2015].
- [7] Australian Veterinary Acupuncture Group (AVAG), 2016. [Online]. Available: <http://acuvet.ava.com.au/> [Accessed 15.01.2016].
- [8] Austrian Veterinary Acupuncture Society (AVAS), 2016. [Online]. Available: <http://www.avas-austria.org/> [Accessed 15.01.2016].
- [9] Belgium Veterinary Acupuncture Society (BEVAS), 2016. [Online]. Available: <http://www.bevas.eu/> [Accessed 15.01.2016].
- [10] Brazilian Association of Veterinary Acupuncture (ABRAVET), 2016. [Online]. Available: <http://www.abravet.com.br/> [Accessed 15.01.2016].
- [11] Chi Institute of Traditional Chinese Veterinary Medicine, 2016. [Online]. Available: <http://www.tcvm.com/> [Accessed 15.01.2016].
- [12] Cohen, L., 2014. “The changing role of traditional Chinese medicine in the 20th century. Decoded Past”. [Online]. Available: <http://decodedpast.com/changing-role-traditional-chinese-medicine-20th-century/13841> [Accessed 18.10.2015].
- [13] Confessor, M. V. A., Mendonça, L. E. T., Mourão, J. S., Alves, R. R. N., “Animals to heal animals: ethnoveterinary practices in semiarid region, Northeastern Brazil”. *Journal of Ethnobiology and Ethnomedicine*, 5:37, 2009. DOI: 10.1186/1746-4269-5-37.
- [14] Dutch Veterinary Acupuncture Society (SNVA), 2016. [Online]. Available: <http://www.acupunctuurbijdiere.nl/> [Accessed 15.01.2016].
- [15] Epler, D., “Blood-letting in Early Chinese Medicine and its Relation to the Origins of Acupuncture”. *Bulletin of the History of Medicine* 54 (3): 337–67, 1980. PMID 6998524.
- [16] German Veterinary Acupuncture Society (GerVAS), 2016. [Online]. Available: <http://www.gervas.org/> [Accessed 15.01.2016].

- [17] Goldschmidt, A., "The Evolution of Chinese Medicine: Song Dynasty, 960–1200". London and New York: Routledge, 2009. ISBN 978-0-415-42655-8.
- [18] Habacher, G., Pittler, M., Ernst, E., „Effectiveness Of Acupuncture in Veterinary Medicine: Systematic Review". *Journal of Veterinary Internal Medicine*, Volume 20, Issue 3, pp 480–488, 2006.
- [19] Harper, D., "Early Chinese Medical Literature: The Mawangdui Medical Manuscripts". London and New York: Kegan Paul International, 1998. ISBN 978-0-7103-0582-4.
- [20] International Academy of Veterinary Chiropractic (IAVC), 2016. [Online]. Available: <http://www.i-a-v-c.com/> [Accessed 15.01.2016].
- [21] International Veterinary Acupuncture Society (IVAS), 2016. [Online]. Available: <https://www.ivas.org/> [Accessed 15.01.2016].
- [22] Italian Veterinary Acupuncture Society (SIAV/ItVAS), 2016. [Online]. Available: <http://www.sia-v-itvas.org/> [Accessed 15.01.2016].
- [23] IVAS España (IESP) 2016. [Online]. Available: <http://www.ivasespana.com/> [Accessed 15.01.2016].
- [24] Lana, S. E., Kogan, L. R., Crump, K. A., Graham, J. T., Robinson, N. G., "The Use of Complementary and Alternative Therapies in Dogs and Cats with Cancer". *Journal of the American Animal Hospital Association*, Vol. 42, No. 5, pp. 361-365, 2006. doi: <http://dx.doi.org/10.5326/0420361>
- [25] Leonti, M., Casu, L., "Traditional medicines and globalization: Current and future perspectives in ethnopharmacology". *Frontiers in Pharmacology*, 4: 92, 2013. doi:10.3389/fphar.2013.00092. PMC: 3722488. PMID 23898296.
- [26] Lin, J.H., Panzer, R., "Use of Chinese herbal medicine in science: history and perspectives". *Scientific and Technical Review of the Office International des Epizooties (Paris)*, 13 (2), 425-432, 1994.
- [27] Maciocia, G., "The Foundations of Chinese Medicine: A Comprehensive Text for Acupuncturists and Herbalists". Churchill Livingstone, 1989. ISBN 978-0-443-03980-5.
- [28] Memon, M. A., Sprunger, L. K., "Survey of colleges and schools of veterinary medicine regarding education in complementary and alternative veterinary medicine". *Journal of the American Veterinary Medical Association*, Vol. 239, No. 5, pp 619-623, 2011. doi: 10.2460/javma.239.5.619
- [29] Nordic Veterinary Acupuncture Society (NoVAS), 2016. [Online]. Available: <http://www.novas.dk/> [Accessed 15.01.2016].
- [30] Orloev, N., "Research methodology". Rouse: Centre for higher education training and management, 2002.
- [31] Robinson, N. G., "Overview of Complementary and Alternative Veterinary Medicine". *The Merck Veterinary Manual*, 2013. [Online]. Available: http://www.merckvetmanual.com/mvm/management_and_nutrition/complementary_and_alternative_veterinary_medicine/overview_of_complementary_and_alternative_veterinary_medicine.html [Accessed 20.12.2015].
- [32] Rogers, P. A. M., "A brief history of acupuncture (AP) and the status of veterinary AP outside mainland China. Part I". Postgraduate Course in Veterinary AP, Sydney, 1993. [Online]. Available: <http://med-vetacupuncture.org/english/vet/histor1.htm> [Accessed 18.10.2015].
- [33] Sivin, N., "Traditional Medicine in Contemporary China". Ann Arbor: Center for Chinese Studies, University of Michigan, 1987. ISBN 978-0-89264-074-4.
- [34] Swiss Veterinary Association for Complementary and Alternative Medicine (CAMVET), 2016. [Online]. Available: <https://www.camvet.ch> [Accessed 15.01.2016].
- [35] Xie, H., "Xie's Chinese Veterinary Herbology". John Wiley & Sons, Inc., 2010.
- [36] Varshney, J. P., Naresh, R., "Evaluation of a homeopathic complex in the clinical management of udder diseases of riverine buffaloes". *Homeopathy*, Volume 93, Issue 1, pp 17–20, 2004. doi:10.1016/j.homp.2003.11.007.
- [37] World Association of Traditional Chinese Veterinary Medicine (WATCVM), 2016. [Online]. Available: <http://www.watcvm.org/> [Accessed 15.01.2016].
- [38] World Health Organization (WHO), "Essential medicines and health products: Traditional Medicine: Definitions", 2000. [Online]. Available: <http://www.who.int/medicines/areas/traditional/definitions/en/> [Accessed 12.01.2016]
- [39] World Health Organization (WHO), "Acupuncture: Review and Analysis of Reports on Controlled Clinical Trial", 2003. ISBN-13 9789241545433.
- [40] Wynn, S. G., Marsden, S., "Manual of natural veterinary medicine: science and tradition", 2003. ISBN 0-323-01354-6.