Introduction

In her book New Green Pharmacy Barbara Griggs states that "Herbal medicine is the oldest form of therapy practised by mankind." [1] In the 1960s an archaeological dig in the mountains of Iraq uncovered a tomb in which there was a body of a Neanderthal man who had various seeds buried with him. Archaeological studies at the site in Shanidar, Iraq have shown that this Neanderthal man, living over 60,000 years ago may well have had an understanding of herbal medicine. He had 8 species of plant found at the burial site, and most of those are still being commonly used as herbal medicines throughout the world. Some of the species found were yarrow, marshmallow, groundsel, centaury, ephedra, and muscari (hyacinth). [2] Herbal medicine has been used by the human species all over the planet, it seems for at least the past 60,000 years, and in some parts of the world up to 80% of the populations still use herbal medicine as a primary source of health care. [3]

The earliest surviving reference to herbal medicine is debatable. Some claim that it is from the Upanishads of Ayurvedic medicine from India dating from 800-1000 BCE [4], others say the Ebers papyrus from Egypt dating from 1,500 BCE [5], while yet others claim it to be the Shen nong ben cao from China, attributed to the mythical Emperor Shen nong who was reputed to have been alive around 2,800 BCE, with the extant copy dating back to 200 BCE. [6]

In the 21st century there are three principal "energetic" systems of traditional / herbal medicine: Humoral medicine, Traditional Chinese Medicine (TCM), and Ayurvedic medicine. This article will discuss the foundations of these systems and compare and contrast a few aspects. Comments which contain summary reflections on those comparisons and contrasts are given in italics.

Humoral medicine

Humoral medicine, or the “Art of Physick” from the Greek physis meaning nature, traces its roots to Hippocrates and Galen. [7] It is the tradition which was popularised and used in Europe and from which orthodox medicine subsequently developed. It held sway for approximately 1,400 years before its European decline, but has continued to be practiced in a modified way as Unani Tibb medicine in Bangladesh. The founders of what is now known as humoral medicine originated from Greece. The best known is Hippocrates, who was born about 460 BC on the island of Cos, and died in approximately 377 BC. Orthodox medicine likes to fondly call Hippocrates the father of medicine [8] and it was not so long ago that the Hippocratic Oath was still a part of the process of becoming sworn in as a doctor. The surviving Hippocratic writings are believed to be a collection of a variety of writers not solely, if at all, by Hippocrates himself.[9]

The Hippocratic Oath

Hippocrates based his practice on observations and study of the human body, and thought that disease had a physical and a rational explanation, thus rejecting the prevailing views of his time, according to which illness was caused by evil spirits and the disfavour of the gods. [10] He thought that we should be treated as whole beings, and not just a series of parts. He accurately described disease symptoms and was the first to list the symptoms of pneumonia and childhood epilepsy. He believed in the natural healing process, and the benefits of rest, good diet, fresh air and cleanliness. He noted that there were individual differences in the severity of disease symptoms and that some individuals were able to cope with their disease and illness better than others. He is also believed to be the first physician to hold the belief that thoughts,
ideas, and feelings come from the brain and not the heart, contrary to most of his contemporaries. [11]

**Galen**

Galen (130 - 210 AD) was of Greek extraction but became celebrated in the Roman Empire and was physician to five emperors. He took on and developed the theory that illness was caused by an imbalance of the four humours: blood, phlegm, black bile and yellow bile, which were the basic substances of the body and when healthy were in balance. [12] These four humours had “primary qualities” which in turn related to the four elements of earth, air, fire, and water, and to four temperaments, four seasons and four stages of life.

<table>
<thead>
<tr>
<th>The four elements</th>
<th>Fire</th>
<th>Air</th>
<th>Water</th>
<th>Earth</th>
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<tr>
<td>Primary qualities</td>
<td>Hot and Dry</td>
<td>Hot and Moist</td>
<td>Cold and Moist</td>
<td>Cold and Dry</td>
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<tr>
<td>The four temperaments, seasons and stages of life</td>
<td>Choleric Summer Youth</td>
<td>Sanguine Spring Childhood</td>
<td>Phlegmatic Winter Old age</td>
<td>Melancholic Autumn Middle age</td>
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<tr>
<td>The Humours</td>
<td>Yellow bile</td>
<td>Blood</td>
<td>Phlegm</td>
<td>Black bile</td>
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Galen’s works were translated into Arabic by Hunain ibn Ishaq and others in the 9th century, and after 1000 AD translations from the Arabic strengthened Galenism as a medical system in the Christian west.

In England perhaps the most outstanding figure in the Humoral tradition was the 17th century herbalist Nicholas Culpeper (1616-1654), who translated Galen into English. Culpeper was a devout Christian who believed that, as stated in Genesis, God breathed life (pneuma) into Adam’s nostrils to make him a living soul. ([7], p.76) As this form of pneuma was divine it was incorruptible, and sustained the higher mind or rational soul, which allowed man to be aware of spirituality and to develop spiritual beliefs. Pneuma was regarded as being very hot, providing the original innate heat of the body, integral to life, and expiring at death. Air taken in via the lungs contained “accidental” pneuma which helped to replenish the inbred pneuma, and also performed the vital function of cooling the heart.

**Nicholas Culpeper 1616-1654**

The heart was of central importance. This can in part be explained by the role of the vital spirit. The heart was implicit in the concept of spirit, which radiated from it passing via the arteries throughout the body and affecting the vital faculty. This spirit activated the natural spirit in the liver, and the animal spirit in the brain. The spirits within the body are also called pneuma, meaning air, spirit, wind, or breath (of life). Pneuma can be likened to the Chinese concept of Qi and the Indian concept of Prana as the warming motive force in the body. In one form this is the energy that makes us and the world live. In people it is generated by the air we breathe and the food we eat, and is a central and integral concept in all energetic medicine systems.

**Innate heat and radical moisture**

The metaphor of the oil lamp has been used in relation to Humoral medicine. The flame is a representation of innate heat, and the oil is representative of radical moisture. The flame and oil combined determines life span. At birth the flame is rekindled and the lamp is replete with oil, the flame burns bright and uses up the excess of oil – the burning up of this excess allows for (childhood) growth. As a youth the flame burns more intensely, the oil is sufficient to keep the flame going but not in excess, thus growth ceases. As middle age is approached the flame becomes less intense which reduces the digestive function.
Discussion

which allows extraneous water to be produced which in turn reduces the intensity of the flame thus creating a negative cycle by further weakening the digestion. In old age the oil and radical moisture are consumed and the flame goes out. [7] This closely mirrors the TCM concept of Ming men, the Gate of Vitality, with the fire in the Kidneys and moisture related to Jing or essence. In Ayurveda there is the fire or Agni and moisture of Ojas which vitalises.

Health is about maintaining and preserving the balance of heat and moisture. A fine energetic balance was essential to keep all substances in equilibrium. Radical moisture cherished and maintained the flame and ensured that the heat was controlled to give the correct amount of warmth, rather than going out of balance and becoming destructive.

If unchecked the heat had the potential to dry out the body, while the moisture, if excessive, could dampen the heat, both of which could result in a reduced life span. The heart being hot and dry needed moisture for it to be at ease, the radical moisture needed warmth and movement to stop it putrefying. Innate heat was necessary for all bodily functions, from the digestion to the menses. As a contemporary of Culpeper, Riviere, wrote: "...after 50 or 55 the effluxions of the menstrual blood cease because the heat being weakened is not able any more to generate such plenty of blood". [13] Again, in close similarity to Chinese medicine, hot and cold, fire and water and the balance between them constitutes health.

Diagnosis

In Humoral medicine observation of the patient was seen as very important: "First of all the doctor should look at the patient's face. If he looks his usual self this is a good sign. If not, however, the following are bad signs – sharp nose, hollow eyes, cold ears, dry skin on the forehead, strange face colour such as green, black, red or lead coloured. If the face is like this at the beginning of the illness, the doctor must ask the patient if he has lost sleep, or had diarrhoea, or not eaten." [10]

The pulse was also regarded by Galen with great enthusiasm. He composed seven extended treatises on the pulse, filling nearly a thousand pages. Later another celebrated physician Hercules Saxonia (1551- 1607) said, referring to the pulse: "Nothing is or ever will be more significant in medical science" [14] The Humoral tradition also considered the tongue to be an important indicator of health or disease.

Degrees of temperature

In common with the other energetic traditions, Humoral medicine not only listed substances as hot or cold, but classified them into varying degrees. It was also important to treat the correct part of the person "...if the head be distempered by heat, and you give such medicines as cool the heart or liver, you will bring another disease, and not cure the former" ([16] p.556) In the English Physician Enlarged medicines are categorised on a scale of 1-4 degrees, so a medicine hot in the first degree was said by Culpeper to "induce a moderate and natural heat to the body", but the first effect is "...by there sweat and temperate heat to reduce the body to its natural heat". Whereas a medicine hot in the fourth degree "burn the body of man, being outwardly applied... Crowfoot, Mustard seed, Onions..." ([16] p. 558).

Traditional Chinese Medicine

Traditional Chinese Medicine (TCM) provides a theoretical understanding of health and disease, practically applied via acupuncture, herbal medicine, qi gong, massage, and diet therapy. If a diagnosis can be attained, then any of those five modes of treatment can be used. Each are better for certain conditions. The tradition is underpinned by Taosim: "Tao is eternal without doing and yet nothing remains not done" [17]. From the original chaos (the void or "Wu"), came the One ("Tai ji" or the Supreme ultimate) which split into Yin and Yang, thus creating an energetic tension within itself which allowed the universe to manifest [18] Health is attained when Yin and Yang are in balance, and all interventions in TCM can be reduced to trying to regain and reassert this balance. Yin and Yang, signifying the shady and sunny side of a hill, are opposites (cold and hot, female and male, night and day, contractive and expansive), interdependent (one cannot exist without the other), transform one into the other (if there was no night how could you posit day?), and mutually consume (when they are out of balance they affect each other, when one goes up the other goes down).

Qi is the stuff of the universe. Everything is made up of it. In the body Qi is associated with Yang, as it is energetic, motive, and warming. Blood (which is also Qi but denser and more nourishing) has a much broader scope of action compared to the western medicine understanding of blood. In Chinese medicine Blood is associated with Yin, and is nourishing, moistening, and cooling. There is an expression which says that "Qi is the commander of Blood. Blood is the mother of Qi". Qi and Blood flow throughout the body and through the meridians which link us exteriorly interiorly. In the body there are many forms of Qi. Qi is made primarily in the Spleen from the food that we eat and the Lungs from the air that we breathe.

In TCM diagnosis is made through looking, hearing, asking, feeling, and smelling, though now smelling tends not to have the significance of the other four.
The practitioner looks at the patient, their demeanour, body type, skin, gait, and posture, and tongue. Different areas of the tongue relate to different organs, and colour, cracks, and coating provide relevant information which contributes towards the final diagnosis. Hearing body sounds, such as, strength of voice, nature of cough, abdominal sounds is of use. However the easiest and most accurate use of hearing is listening to what the patient has to say!

Healing ultimately comes from inside each of us. The process of recovering health is often a learning experience, which allows growth and development for the individual. Thus accurate and clear communication is essential. Asking relevant questions is necessary to obtain a clear case history which in turn leads to an accurate diagnosis and targeted treatment. Feeling is the final part of the jigsaw. Touch is essential for the human condition, How does the skin feel? Is it warm, cold, dry, clammy etc. And above all, together with the tongue, the pulse can provide immediate information about the individual. Is it fast (indicating heat) or slow (indicating cold)? Is it full or weak? The importance of pulse and tongue diagnosis in traditional Chinese medicine closely parallels their importance in Humoral medicine and Ayurveda.

Ayurvedic medicine

Ayurveda is the traditional medicine system of the Indian sub continent. Ayurveda translates as "the science of life" or "the art of wise living". The word Ayurveda comes from the Vedas, the ancient sacred books of the Aryans.

Two main source text books on Ayurveda may be singled out: the Sushruta samhita which really concentrates on surgical techniques, and the Charaka samhita, which is more based around internal medicine and was written around 800-1000 BCE. [19]

“It is called Ayurveda because it tells us which substances, qualities and actions are life enhancing and which are not” (from the Charaka samhita).

Ayurveda roots itself in the same Sankhya philosophy as yoga. [19] Though Humoral medicine did not develop a systematised form of exercise, but Yoga is to Ayurveda what Tai ji/ Qi gong is to Chinese medicine.

Everything evolves from an Absolute Reality (Purusha) which is consciousness without any characteristics whatsoever, beyond time, space and causation, a single point which encompasses everything and which cannot be perceived by the mind or accurately described in human language” [19]. Purusha is the male and Prakriti the female energy. In Lad’s explanation, Purusha is “unmanifested, formless, passive, beyond attributes, cause and effect, space and time”, while Prakriti is “the creative force of action, the source of form, manifestation, attributes and nature”. [20] Purusha and Prakriti unite to create movement that causes the dance of creation to begin. Purusha can be compared to the Tao in Chinese medicine and to God in Humoral medicine.

From this Absolute Reality evolves Relative Reality/ Nature (Prakriti), the difference being that Absolute Reality (Purusha) knows itself to be identical with Nature (Prakriti), but Nature (Prakriti) believes itself to be different from Absolute Reality (Purusha). The passive awareness of difference evolves into an undifferentiated or cosmic Intelligence (Mahat), a faculty through which this difference is actively perceived; it is the archetypal forms behind the manifest world. Intelligence (Mahat) is thus Nature’s unlimited self awareness. This undifferentiated Intelligence individuates into discrete limited bundles of awareness called Ego (Ahamkara). Ahamkara means “the I maker” as the ego is a process not an intrinsic reality. This process involves identification with different aspects of the created world. Ahamkara is a series of divisive thoughts, not a separate entity that exists in itself, despite the fact that we conceive it as a consistent self with which we identify. It is this aspect of ourselves that creates the illusion of separateness from cosmic consciousness and is thus the cause of so much suffering.

Nature as manifested through Ahamkara has three attributes or Gunas. These three Gunas are the foundation for all existence [20], and are more subtle than the five elements which arise through their activity. They are Sattva (Equilibrium, Stability, Pure aspect, Awakening, Essence and light); Rajas (Activity, Dynamic movement); Tamas (Inertia, Potential energy, Darkness, Ignorance and Matter). [20] These three Gunas have been likened to the three alchemical elements Salt, Sulphur, and Mercury, singled out in the western tradition in particular by Paracelsus (1493-1541).

“Ego, Ahamkar manifests into the five senses and the five motor organs with the help of Sativa thus creating the organic universe. The same ego further manifests into the five basic elements with the help of Tamas to create the inorganic universe.” ([20], p.16)

Rajas is the active vital force in the body which activates the potential energies of Sattva and Tamas. Under the predominance of Tamas the 5 elements evolve with the diversification according to the three Gunas. However the Gunas are too subtle to satisfy living requirements so they metamorphose into Doshas, which means a “fault, error or something that can go wrong”. ([19], p.50)
Doshas

The three Doshas are Vata (Air), Pitta (Fire) and Kapha (Earth). The mingling and combination of these makes up your constitution or Prakriti. Individual human constitution is a balance of the three, and controls everything from appearance to cellular function. Each person is a combination of the Doshas, but often one will tend to predominate. This individual balance of Doshas is unique and individual specific. Which one predominates and the balance of the Doshas indicates where disease susceptibility will manifest, and provides advice on how to live to maximise wellness by balancing the Doshas.

Vata types are full of bright ideas and very creative, visionaries – they are often in constant motion and have “air” problems and “gaps”… when they are out of balance this can manifest as being forgetful and spaced out, not in touch with reality and often they will get symptoms that will move about. Vata compares to Wind in Chinese medicine and Air/Sanguine in Humoral medicine.

Pitta types tend to be perfectionists. They can be confident, fiery and hot. If exacerbated this will make them angry and irritable and will often manifest for example as skin conditions and stomach ulcers. Pitta compares to Fire manifestations in Chinese medicine and Fire/Choleric types in Humoral medicine.

Kapha types tend to be solid, steady, loyal, and calm. The best athletes tend to be Kapha types because if they train this balances out their inherent sluggishness and they develop great strength. If their tendencies are magnified they will tend to put on weight and become catarrhal with sluggish digestion. Thus vigorous exercise and competition, for example, while being of benefit for Kapha types would tend to be detrimental to the more naturally active and competitive Pitta type. Pitta on the other hand would benefit from non competitive exercise and certain calmer types of yoga to balance out their constitution. Kapha can be compared to the Phlegmatic type in Humoral medicine, and Water/Earth in Chinese medicine.

Ayurveda recognises the flow of “sap” or Rasa through the body which irrigates the tissues. Many Srotas or “channels” are recognised which include the digestive, respiratory and cardiac systems. The human body has a number of interwoven layers – the channels, the body of muscles bones and nerves, the subtle body and the causal body. Subtle anatomy is where Prana flows through conduits - Nadis and plexuses or Chakras. The most important Nadi is the central Sushumna conduit where the Chakras are arranged. This flows through the same space as the central sulcus of the spinal cord on the physical plane. The nostrils are the next most important Nadis. There are Marmas which are points where vital channels intersect. Some are identical to acupuncture points.

In Ayurvedic medicine the importance of the digestion generally and the maintenance of the digestive fire (Jathara agni) is central to good health. If the digestion does not function effectively then Ama is produced which is generated due to improper or incomplete digestion, and is the “root of all disease” [20]. Ama and Damp are very similar concepts: in Humoral medicine weakness of digestion leads to increase in extraneous water which leads to reduction in innate heat which leads to weakness of digestion In Chinese medicine impaired Spleen function leads to Damp, which leads to impaired Spleen function.

Diagnosis

There are three techniques traditionally used to diagnose in Ayurveda: Darshana (see and observe), Sparshana (touch), Prashana (enquire by asking).[21] Ayurveda includes pulse diagnosis, and uses three positions naming them Vata, Pitta, Kapha which correlate to Cun, Guan, and Chi in Chinese medicine. On the right wrist the first position (most distal, closest to the cun in CM) relates superficially to the Large intestine and deep to the Lungs. Second position relates superficially to Gall bladder and deep to Liver, and the third position superficially to Pericardium and deep to Vatta, Pitta, and Kapha. On the left wrist the first position relates superficially to Small intestine and deep to Heart, the second position relates superficially to Stomach and deep to Spleen, and the third position relates to superficially Bladder and deep to Kidney. [20]

Conclusions

CM and Ayurveda are more “complete” how-to-live systems than Humoral medicine, incorporating diet, exercise, meditational practises (yoga, tai ji, qi gong ), internal (diet and traditional remedies) and external (Acupuncture/Marma points, massage) treatment modalities. Also Humoral medicine, with a shorter history and less geographically inculcated than the other two, was exposed to the western predilection towards the
contradiction of opposites (the table is square or the table is not square), which when applied to an energetic system is always going to be limiting. How is Qi, Prana or Pneuma to be measured? However for westerners having an awareness and empathy with the west’s historical energetic tradition can be vastly rewarding, and the correspondences that Culpeper documents help to deepen knowledge and awareness of the flora indigenous to these islands. It is not possible to have the same relationship with a dried herb as it is with a fresh living plant; a personal relationship with growing, living plants can never be surpassed by a powder, pill or dried herb.

Though terminology and cultural settings are different, there are many important similarities:

- Central to these is the need for balance, balance of water and fire, activity and rest. The importance of the individual existing in harmony with the environment and seasons is also a core similarity.
- Shiva and Shakti – in some senses could be analogue God and Goddess, and Yin and Yang – but without the anthropomorphic attributes.
- The constitution of the individual has more emphasis placed on it in Humoral and Ayurvedic medicine than in TCM, but TCM does have the five elements and many correspondences relating to them, including body type and basic characteristics, and five element acupuncture places particular importance on the constitution
- Purusha/Tao/God – now I am sure that many of us will not want to put God in that list, but in humoral medicine, certainly as practised by Culpeper, God is probably the closest comparison available.
- Acupuncture points/Marma points – some of the locations of these points are identical, other are not. TCM has a much more systematised approach and rationale to treatment via Acupuncture. Humoral medicine was not aware of external points.
- Each of the three systems traditionally used non plant substances.
- Pulse and tongue diagnosis was emphasised in all three traditions as an essential tool for diagnosis.

This discussion has only scratched the surface of these three immense traditions, but I would humbly propose that the similarities between them is far greater than their differences, and often the differences that exist are in terminology rather than vastly different understandings of the universe and our place in it.

If, as we are told, knowledge is power, then the deeper our individual understanding can be of all medical systems the greater likelihood of successful practice, whichever energetic system resonates mostly harmoniously with the individual practitioner.

References

Discussion


**The Author:** Steve Kippax started growing herbs at the age of 13 and enrolled at the School of Herbal Medicine (Phytotherapy) in 1980. He joined the National Institute of Medical Herbalists (NIMH) in 1985 and has been practising herbal medicine ever since. He became interested in Chinese medicine in the late 1980s, attended the School of Chinese herbal medicine and went to further and broaden his learning to include acupuncture, Qi gong, Tai ji, massage and diet therapy in Guangzhou TCM University hospital PRC in 1992, 1993, 1995 and 2007.

His eclectic interests have led him to examine other energetic systems – Homeopathy, Ayurveda and Humoral medicine; which while being of interest and expanding his knowledge base do not detract from but enhance his main passion - herbs and TCM.

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Steve says: “I would like to thank Annie McIntyre and Graeme Tobyn for their expertise and helpful comments while writing this article”.