Essence of Ayurveda: The traditional medical science

D M Sakarkar¹*, Ku. U M Sakarkar² and S B Jaiswal³
¹Vidyabharati College of Pharmacy, Camp, Amravati 444602;
²Chatinya Ayurvedic Medical College, Sakegaon, Bhusawal;
³Gurunanak Technical Institute, Bezonbagh, Nagpur

Received 17 January 2003

As the health care professions look seriously at complementary and alternative modalities of medicine, a growing interest in traditional Indian medicine is emerging simultaneously. As with any popular development, aspects of the Indian medical system and its cures have sometimes been appropriated by individuals not wholly familiar with the basics of Ayurveda or the Science of Longevity. Over the past decade, however, a group of dedicated scholars has undertaken serious study of this ancient healing tradition. It is appropriate to present the fundamental principles and practices of traditional Ayurveda, as they may be understood from classical Sanskrit sources and traditional Indian practitioners. Traditional Ayurveda is a sophisticated system of medicine that has been practiced in India for over 2,500 years. Like other forms of alternative and complementary medicine, it focuses on the whole organism and its relation to the external world, in order to reestablish and maintain the harmonious balance that exists within the body and between the body and its environment. Only a glimpse of this ancient form of medicine has been offered; there is much to be learned from a deeper exploration of Ayurveda. Here the authors stress the various aspects of traditional practice of an ancient Indian medical science i.e. Ayurveda.

Keywords: Ayurveda, Indian medicine.

History

Based on available literary sources, the history of Indian medicine developed in four main phases. The first, or Vedic phase dates from about 1200 to 800 BC. Information about medicine during this period is obtained from numerous curative incantations and references to healing that are found in the Atharvaveda and the Rigveda, two religious scriptures that reveal a “magico-religious” approach to healing. The second or classical phase is marked by the advent of the first Sanskrit medical treatises, the Charaka and Sushruta Samhitas, which probably date from a few centuries before to several centuries after the start of the Common Era. This period includes all subsequent medical treatises dating from before the Muslim invasions of India at the beginning of the eleventh century, for these works tend to follow the earlier classical compilations closely and provide the basis of traditional Ayurveda.

*Correspondent author
Clear influences on the classical paradigm from Islamic or Unani, South Indian Siddha, and other non-classical medical systems mark the third or syncretic phase. Bhavamishra's sixteenth century Bha­vaprakasha is one text that reveals the results of these influences, which included diagnosis by examination of pulse or urine. This phase extends from the early eleventh century to the present era. The final phase as "New Age Ayurveda," wherein the classical paradigm is being adapted to the world of modern science and technology, including quantum physics, mind-body science, and advanced biomedical science. These four phases of Indian medical history provide a chronological grid necessary to understand the development of this ancient system of medicine.

**Theoretical foundations**

From its beginnings during the Vedic era, Indian medicine always has adhered closely to the principle of a fundamental connection between the microcosm and macrocosm. Human beings are minute representations of the universe, and contain within them everything that makes up the surrounding world. Comprehending the world is crucial to comprehending the human and, conversely, understanding the world is necessary to understanding the human.

**The human body**

According to Ayurveda, the cosmos is composed of five basic elements: earth, air, fire, water, and space. Certain forces cause these to interact, giving rise to all that exists. In human beings, these five elements occur as the three doshas, forces that, along with the seven dhatus (tissues) and three malas (waste products), make up the human body.

**The three doshas**

When in equilibrium, the three doshas maintain health; but when an imbalance occurs among them, they define the normal functioning of the body, leading to the manifestation of disease. An imbalance indicates an increase or decrease in one, two, or all three of the doshas. The three doshas are Vata, Pitta, and kapha. Vata or Vayu meaning wind is composed of the element air and space. It is the principle of kinetic energy, and is responsible for all bodily movement and nervous functions. It is located below the navel, in the bladder, large intestines, nervous system, pelvic region, thighs, bone marrow, and legs; its principal seat is the colon. When disrupted, its primary manifestation is gas and muscular or nervous energy, leading to pain. Pitta, or bile, is composed of the element fire and water. It governs enzymes and hormones, and is responsible for digestion, pigmentation, body temperature, hunger, thirst, sight, courage, and mental activity. It is located between the navel and the chest, the stomach, small intestines, liver, spleen, skin, and blood; its principal seat is the stomach. When disrupted, its primary manifestation is acid and bile, leading to inflammation. Kapha or Shleshman, meaning phlegm, is composed of the elements of earth and water. It connotes the principle of cohesion and stability. It regulates Vata and Pitta, is responsible for keeping the body lubricated and
maintaining its solid nature, tissues, sexual power, and strength. It also controls patience. Its normal locations are the upper part of the body, the thorax, head, neck, upper portion of the stomach, pleural cavity, fat tissues, and areas between joints; its principal seat is the lung. When it is disrupted, its primary manifestation is liquid and mucus, leading to swelling, with or without discharge. The attributes of each dosha help to determine the individual’s basic bodily and mental makeup and to isolate which dosha(s) are responsible for a disease.

The qualities of Vata are dryness, cold, light, irregularity, mobility, roughness, and abundance. Dryness occurs when Vata is disturbed, and is a side effect of motion. Too much dryness produces irregularity in the body and mind. Pitta is hot, light, intense, fluid, liquid, putrid, pungent, and sour. Heat appears when Pitta is disturbed, resulting from change caused by Pitta. The intensity of excessive heat produces irritability in the body and mind. Kapha is heavy, unctuous, cold, stable, dense, soft, and smooth. Heaviness occurs when Kapha is disturbed, and results from firmness caused by Kapha. The viscosity of excessive heaviness and stability produces slowness in body and mind.

The seven dhatus

The seven dhatus or tissues are responsible for sustaining the body. Each dhatu is responsible for the one that comes next in the following order.
1. Rasa, meaning sap or juice, includes the tissue fluids, chyle, lymph, and plasma, and functions as nourishment. It comes from digested food.
2. Blood includes the red blood cells, and functions to invigorate the body.
3. Flesh includes muscle tissue, and functions as stabilization.
4. Fat includes adipose tissue, and functions as lubrication.
5. Bone includes bone and cartilage, and functions as support.
6. Marrow includes red and yellow bone marrow, and functions as filling for the bones.
7. Shukra includes male and female sexual fluids, and functions in reproduction and immunity.

The three malas

These are the waste products of digested and processed food and drink. Ayurveda delineates three principal malas, viz. urine, feces, and sweat. A fourth category of other waste products includes fatty excretions from the skin and intestines, earwax, mucus of the nose, saliva, tears, hair, and nails. According to Ayurveda, an individual should evacuate the bowels once a day, and eliminate urine six times a day. Ayurveda considers digestion to be the most important function that takes place in the human body. It provides all that is required to sustain the organism and is the principal cause for all maladies from which an individual suffers. The process of digestion and assimilation of nutrients will be discussed under the topics of the Agnis (enzymes), Ama (improperly digested food and drink), and the Srotas (channels of circulation).
The thirteen agnis

The Agnis, or enzymes, assist in the digestion and assimilation of food, and are divided into three types. Jatharagni is active in the mouth, stomach, and gastrointestinal tract, and helps to break down food. The waste product of feces results from this activity. Bhutagnis are five enzymes located in the liver. They adapt the broken down food into a homologous chyle according to the five elements, and assist the chyle to assimilate with the corresponding five elements in the body. The homologous chyle circulates in the blood channels as Rasa, nourishing the body and supplying the seven dhatus. Dhatvagnis are seven enzymes, which synthesize the seven dhatus from the assimilated chyle homologized with the five elements. The remaining waste products result from this activity.

Ama

Ama, the chief cause of disease, is formed when there is a decrease in enzyme activity. A product of improperly digested food and drink, it takes the form of a liquid sludge that travels through the same channels as the chyle. Because of its density, however, it lodges in different parts of the body, blocking the channels. It frequently mixes with the doshas that circulate through the same pathways and it gravitates to a weak or stressed organ, or to a site of a disease manifestation. Since all diseases invariably come from Ama, the word Amaya, meaning “coming from Ama,” is a synonym for disease. Internal diseases begin with Ama, and external diseases produce Ama. In general, Ama can be detected by a coating on the tongue; turbid urine with foul odour; and feces that is passed with undigested food, an offensive odour, and abundant gas. The principal course of treatment in Ayurveda involves the elimination of Ama and the restoration of the balance of the doshas.

The thirteen kinds of srotas

The Srotas are the vessels or channels of the body through which all substances circulate. They are either large, such as the large and small intestines, uterus, arteries, and veins, or small, such as the capillaries. A healthy body has open and free-flowing channels. Blockage of the channels, usually by Ama, results in disease.

1. Pranavahasrotas convey vitality and vital breath (prana) and originate in the heart and alimentary tract.
2. Udakavahasrotas convey water and fluids and originate in the palate and pancreas.
3. Annavahasrotas convey food from the outside and originate in the stomach.
4. Rasavahasrotas convey chyle, lymph, and plasma, and originate in the heart and in the ten vessels connected with the heart. Ama primarily accumulates within them.
5. Raktavahasrotas convey red blood cells and originate in the liver and spleen.
6. Mamsavahasrotas convey ingredients for muscle tissue and originate in the tendons, ligaments, and skin.
7. Medovahasrotas convey ingredients for fat tissue and originate in the
kidneys and fat tissues of the abdo-

8. Asthavahasrotas convey ingredients
for bone tissue and originate in hip-
bone.

9. Majjavahasrotas convey ingredients for
marrow and originate in the bones
and joints.

10. Shukravahasrotas convey ingredients
for the male and female reproductive
tissues and originate in the testicles
and ovary.

11. Mutravahasrotas convey urine and
originate in the kidney and bladder.

12. Purishavahasrotas convey feces and
originate in the colon and rectum.

13. Svedavahasrotas convey sweat and
originate in the fat tissues and hair
follicles.

This broad outline indicates that Ayur-
veda understands that the human body's
anatomical parts are composed of the five
basic elements, which have undergone a
process of metabolism and assimilation in
the body. Human beings differ depending
upon their normal bodily constitution
(prakriti), which is determined by the
factors such as food, drink, regimen, sea-
son, and mental state, suppressed enzyme
activity in the body, leading to the forma-
tion of Ama. The circulating Ama blocks
the channels. The site of the disease’s
origin is where the blockage occurs. The
circulating Ama, often combining with
one or more of the doshas, then takes a
divergent course, referred to as the path
of transportation. Finally, the dosha(s)
and Ama mixture comes to rest in and
afflicts a certain body part, which is
known as the site of disease manifesta-
tion. Treatment entails correction of all
the steps in the process resulting in dis-
ease manifestation, thus restoring the en-
tire person to his or her particular bal-
anced state.

Therapeutics

In Ayurveda, restoring a person to
health is not viewed simply as the eradi-
cation of disease. It entails a complete
process of diagnosis and therapeutics that
takes into account both mental and physi-
cal components integrated with the social
and physical worlds in which the patient
lives. Ayurvedic diagnosis, examination
of the disease, and types of therapeutics
are briefly explained below.

Ayurvedic diagnosis

Ayurveda established a detailed system
of diagnosis, involving examination of
pulse, urine, and physical features. After
a preliminary examination by means of
visual observation, touch, and interroga-
tion, the Ayurvedic physician undertakes
an eightfold method of detailed examina-
tion to determine the patient’s type of
physical constitution and mental status
and to get an indication of any abnorma-
licity.

Pulse examination

Pulse examination is first mentioned in
a medical treatise from the late 13th or
early 14th century of the Common Era. It
is a highly specialized art. Not every Ay-
urvedic physician uses pulse examination.
The diagnostic process involves evenly
placing the index, middle, and ring fin-
gers of the right hand on the radial artery
of the right hand of men and the left hand
of women, just at the base of the thumb.
A pulse resembling the movement of a snake at the index finger indicates a predominance of Vata; a pulse resembling the movement of a frog at the middle finger indicates a predominance of Pitta; a pulse resembling the movement of a swan or peacock at the ring finger indicates a predominance of Kapha; and a pulse resembling the movement of a woodpecker indicates a predominance of all three doshas. To get an accurate reading, the physician must keep in mind the times when each of the doshas are normally excited, and should take the pulse at least three times early in the morning when the stomach is empty, or three hours after eating in the afternoon, making sure to wash his or her hands after each reading.

Urine examination
Urine examination probably was formalized in the syncretic phase. After collecting the morning’s midstream evacuation in a clear glass container, the physician submits the urine to two kinds of examination after sunrise. First, he studies it in the container to determine its color and degree of transparency. Pale-yellow and unctuous urine indicates Vata; intense yellow, reddish, or blue urine indicates Pitta; white, foamy, and muddy urine indicates Kapha; urine with a blackish tinge indicates a combination of doshas; and urine resembling limejuice or vinegar indicates Ama. The physician also puts a few drops of sesame oil in the urine and examines it in sunlight. The shape, movement, and diffusion of the oil in the urine indicate the prognosis of the disease. The shape of the drops also reveals which dosha(s) is involved. Snake-like shape indicates Vata; umbrella shape Pitta; and pearl shape, Kapha.

Examination of bodily parts
The physician concludes his diagnostic examination with careful scrutiny of the tongue, skin, nails, and physical features to determine which dosha(s) is affected. Using the basic characteristics of each of the doshas, he examines different parts of the body. Coldness, dryness, roughness, and cracking indicate Vata; hotness and redness indicate Pitta; and wetness, whiteness, and coldness indicate Kapha. Having completed this phase of the diagnosis, the Ayurvedic physician proceeds to examine any malady present.

Examination of disease
A detailed examination of the disease involves a five-step process, leading to a complete understanding of the abnormality.

Etiology
A disease results from one or several of the following factors: Mental imbalances resulting from the effects of past actions (karma); unbalanced contact between the senses and the objects of the senses affecting the body and the mind; effects of the seasons on the mental and doshic balance and the immediate causes of diet, regimen, and microorganisms; doshas, Ama and the combination of interaction of individual components such as doshas and tissues, or doshas and microorganisms.

Early signs and symptoms
Early signs and symptoms that appear before the onset of disease provide clues
to the diagnosis. Proper diet and administration of medicine can avert disease if it is recognized early enough.

Manifestation of signs and symptoms

The most crucial step in the diagnostic process is manifestation of signs and symptoms. It involves determining the site of origin and of manifestation, and of the path of transportation of the Ama and dosha(s). Most signs and symptoms are associated with the site of disease manifestation, from which the physician must work his way back to the site of the origin of disease to effect a complete cure. Although symptomatic treatment was largely absent in traditional Ayurveda, modern medicine in India has introduced Ayurvedic physicians to techniques of symptomatic treatment in cases of acute disease.

Pathogenesis

Pathogenesis is a six-step process that determines the manner by which a dosha becomes aggravated and moves through different channels to produce disease. An accumulation of a dosha leads to its aggravation, which causes it to spread through the channels until it lodges in a particular organ of the body, bringing about a manifestation of disease. Once a general form of the disease appears, it progressively splits into specific varieties. As in systems of medicine the world over, many patients consult the Ayurvedic physician only after the disease appears. Ayurveda delineates seven basic varieties of diseases, based on the doshas: diseases involving a single dosha; diseases involving two doshas; and diseases involving all three doshas together. Prognosis is the final step in the Ayurvedic diagnostic process. Since Ayurvedic physicians traditionally did not treat persons with incurable diseases, it was important for the physician to know precisely the patient's chances of full recovery. Therefore, disease is one of three types. It is easily curable, palliative, or incurable or difficult to cure. In general, if the disease type (Vata, Pitta, and Kapha) is different from the person's normal physical constitution, the disease is easy to cure. If the disease and constitution are the same, the disease is difficult to cure. If the disease, constitution, and season correspond to doshic type, the disease is nearly impossible to cure. Having determined the patient's normal constitution, diagnosed his illness, and established his prognosis for recovery, the Ayurvedic physician can begin a proper course of treatment.

Ayurvedic treatment

Ayurveda recognizes two courses of treatment, based on the condition of the patient. The first is prophylaxis, for the healthy person who wants to maintain a normal condition based on his or her physical constitution, and to prevent disease. The second is therapy, for an ill person who requires health to be restored. Once healthy, Ayurveda recommends continuous prophylaxis based on diet, regimen, medicines, and regular therapeutic purification procedures. When a person is diagnosed with a doshic imbalance either purification therapy, alleviation therapy, or a combination of these is prescribed.
Purification therapy

Purification therapy involves the fundamental Panchakarma, or Five-Action Yoga treatment. The fivefold process varies slightly in different traditions and regions of India, but a standard regimen generally is followed. All five procedures can be performed, or a specific procedure can be chosen, based on different factors such as the physical constitution of the patient, his or her condition, the season, and the nature of the disease. Before any action is taken, the patient is given oil internally and externally (with massage), and is sweated to loosen and soften the dosha(s) and Ama. An appropriate diet of food and drink is prescribed. Following this twofold preparatory treatment, called Purvakarana, the five therapies are administered in sequence over the period of about a week. Because of the profound effects on the mind and body, the patient is advised to set aside time for treatment.

(1) First the patient might be given an emetic, and he vomits until bilious matter is produced thus removing Kapha.

(2) Second, a purgative is given until mucus material appears, thus removing Pitta.

(3) Third, an enema, either of oil or decocted medicines, is administered to remove excess Vata.

(4) Fourth, head purgation is given in the form of smoke inhalation or nasal drops to eradicate the dosha(s) that have accumulated in the head and sinuses.

(5) Fifth, leeches may be used and bloodletting performed to purify the blood. Some physicians do not consider bloodletting in the five therapies of Panchakarma, instead counting oily and dry (decocted medicine) enemas as two separate forms.

Alleviation therapy

Alleviation therapy uses the basic condiments honey, butter or ghee, and sesame oil or castor oil to eliminate Kapha, Pitta, and Vata, respectively. This therapy and Panchakarma often are used in conjunction with one another.

Oleation therapy (Snehana)

Oleation therapy involves application of unctuous (oily) substances both internally and externally on the body as a palliative program before Panchakarma and as a general maintenance of the body. This is the first therapy to be administered before Panchakarma therapy. It constitutes the best remedy for alleviating the Vata dosha.

Sources of fats and oils

Animal sources – Fish, fat and bone marrow of four-footed animals.

Curd, milk, oil, ghee, meat, fat and bone marrow of four-footed animals and birds are administered as unctuous substances.

Vegetable sources from plants: tila (Sesamum indicum), eranda (Ricinus communis), mustard seeds (Brassica nigra).

According to Charaka Samhita, ghee is best for oleation therapy. When mixed with other herbs, it does not give up its own properties and has capability to transform itself to inborn qualities of the substance added to it. Properties of some fatty substances are given in Table 1.
Table 1 — Properties of some fatty substances used in oleation therapy

<table>
<thead>
<tr>
<th>Substance</th>
<th>Properties</th>
<th>Season for oleation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghee</td>
<td>Alleviates Pitta and Vata and has cooling and softening effect</td>
<td>Sarat (Autumn)</td>
</tr>
<tr>
<td>Oil</td>
<td>Promotes bodily strength and is hot and stabilizer</td>
<td>Vaisakha (April-May)</td>
</tr>
<tr>
<td>Muscle Fat</td>
<td>Helpful for those who practice physical exercise, are injured and have fracture or some trauma</td>
<td>Pravart (Rainy)</td>
</tr>
<tr>
<td>Bone Marrow</td>
<td>Enhances strength of the body, semen, Kapha, fat and marrow. It also gives strength to the bones</td>
<td>Sarat (Autumn)</td>
</tr>
</tbody>
</table>

**Seasonal indication for oleation**

One should not take extremely hot or cold unctuous substances. Ghee should be taken in autumn because Pitta increases in this season and ghee is antidote for Pitta dosha. Oil alleviates Kapha and Vata due to its hotness. Muscle fat is neither too hot nor too cold so it is recommended in the months of April and May. In this period the bodily strength and dhatu are in diminishing process. So muscle fat can be used to enhance strength and the dhatu.

**Time for administration of fats**

If there is vitiation of Vata and Pitta dosha and in summer, then fats should be administered in the evening. If there is vitiation of Kapha dosha and in winter, then fats should be administered in mid-day.

**Anupana**

Ghee with warm water

Oil with yusha (vegetable soup)

Muscle fat and bone marrow with gruel

All of them can be taken with warm water also.

**Indication for the administration of ghee**

When Vata and Pitta dominate bodily constitution.

When suffering from diseases due to imbalance of Vata and Pitta.

**Indication for the administration of oil**

When it is used in winter for those having Kapha and medas (fat) in excess.

In conditions arising due to vitiation of Vata.

**Indications for the administration of muscle fat**

When Kapha and medas (fat) are below normal.

Who are emaciated and weak due to hard and excessive work.

**Pharmaceutics**

Ayurveda possesses a rich store of natural medicines that have been collected, tested, and recorded in medical treatises from ancient times. The tradition of collecting and preserving information about medicines in recipe-books called Nighantus continues to the present day. The most traditional sources of Ayurvedic medicine are the kitchen. It is likely
that, at an early stage of its development, Indian medical and culinary traditions worked hand-in-hand with each other. Because of the close association between food and medicine, Ayurveda classifies foods and drugs (usually vegetable) by the taste, potency, and taste after digestion. Rasa, taste by the tongue, is categorized into six separate tastes, with their individual elemental composition and doshic effect as follows.

1. Sweet, composed of earth and water, increases Kapha and decreases Pitta and Vata.
2. Sour, composed of earth and fire, increases Kapha and Pitta and decreases Vata.
3. Saline, composed of water and fire, increases Kapha and Pitta and decreases Vata.
4. Pungent, composed of wind and fire, increases Pitta and Vata and decreases Kapha.
5. Bitter, composed of wind and space, increases Vata and decreases Pitta and Kapha.
6. Astringent, composed of wind and earth, increases Vata and decreases Pitta and Kapha. Virya, potency comprises eight types that are divided into four pairs: hot cold, unctuous-dry, heavy light, and dull-sharp. Vipaka, post-digestive taste, identifies three kinds of after-taste: sweet, sour, and pungent. Contrary foods and drugs are to be avoided always. For instance, clarified butter and honey should not be taken in equal quantities; alkalies and salt must not be taken for a long period of time; milk and fish should not be consumed together; and honey should not be put in hot drinks. Four important criteria are considered when compounding plant substances and other ingredients into medical recipes. The substances that make up the recipe should have many attributes that enable it to cure several diseases; they should be usable in many pharmaceutical preparations; they should be suitable for the recipe and not cause unwanted side effects and they should be culturally appropriate to the patients and their customs. Every medicine should be able to treat the disease's site of origin; site of manifestation, and it's spread, simultaneously. A brief survey of the different kinds of medical preparations indicates the depth and content of Ayurvedic pharmaceuticals. The botanicals-based medicines derive largely from the Ayurvedic medical tradition, while the mineral and inorganic-based drugs derive from the Indian Alchemical traditions, called Rasashastra. Some important preparations are as follows.

1. Juices are cold-presses and extractions made from plants.
2. Powders are prepared from parts of plants that have been dried in the shade, and other dried ingredients.
3. Infusions are parts of plants and herbs that have been steeped in water and strained.
4. Cold infusions are parts of plants and herbs that were soaked in water overnight and filtered the next morning.
5. Decoctions are vegetable products...
boiled in a quantity of water proportionate to the hardness of the plant part and then reduced by a fourth. It is then filtered and often used with butter, honey, or oils.

6. Medicated pastes and oils. Often the plant and herbal extracts are combined with other ingredients and formed into pastes, plasters, and oils. Used externally, pastes and plasters are applied for joint, muscular, and skin conditions, and oil is used for hair and head problems. Medicated oils also are used for massages and enemas.

7. Plant and herbal extracts are also formed into pills and suppositories to be used internally.

8. Alcoholic preparations, viz. Asawa, Arista and Kadha are made by fermentation or distillation. Two preparations are delineated: One requires the drug to be boiled before it is fermented or distilled, and in the other, the drug is simply added to the preparation. Alcohol content in a drug is allowed up to fifteen percent. Several Ayurvedic medicines are prepared from minerals and metals, and are derived ultimately from ancient traditions.

9. Sublimates. These are prepared by an elaborate method leading to the sublimation of sulfur in a glass container. They are found in recipes (Rasayanas) used in rejuvenation therapies.

10. Bhaskas are ash residues produced from the calcination of metals, gems, plants, and animal products. Most are metals and minerals that are first detoxified and then purified. An important bhasma is prepared from mercury, which undergoes an 18-stage detoxification and purification process. Ayurveda maintains that bhaskas are quickly absorbed in the blood and increase the red blood cells.

11. Pishtis are fine powders made by triturating of gems with juices and extracts.

12. Collyrium is made from antimony powder, lead oxide, or the soot from lamps burned with castor oil. Collyrium is used especially to improve vision.

Space does not allow a discussion of the individual plants used in Ayurvedic recipes. However, out of hundreds of plants mentioned in various Ayurvedic treatises, most Ayurvedic physicians commonly employ only a small portion.

**Ayurvedic clinical approach**

An example of a specific disease will illustrate the traditional Ayurvedic clinical approach. In Sanskrit terminology, the Amavata refers approximately to arthritic and rheumatic conditions.

**Amavata**

As the word itself indicates, Amavata involves Ama and the dosha Vata (wind). Traditional Ayurveda does not distinguish types of arthritis. This disease is caused by all factors that lead to the formation of Ama: unwholesome foods and regimens, bad digestive power, insufficient exercise, and excessive intake of unctuous foods and meat. The site of origin is principally the colon, but the entire alimentary canal
is involved. Contrary foods and mental disturbance aggravate Vata and lead to the formation of Ama in the colon. Ama, propelled by Vata, leaves the site of origin and affects the enzymes, causing Ama to form at every level. Ama then becomes lodged in the joints and the heart, the sites of manifestation. The path of transport is the Rasavahsrotas, the vessels transporting chyle, lymph, and plasma. Vata is the principal dosha affected. With the aggravation of Vata, symptoms include severe pain in the joints, rough skin, distension of stomach, and indigestion. If Pitta is involved, a burning sensation spreads all over the body, especially in the joints. If Kapha is involved, the patient gradually becomes crippled. Little pain is experienced in the early morning because Ama is just beginning to move.

The Ayurvedic treatment of Amavata involves actions, medicines, and procedures to reduce Ama and alleviate Vata. The first course of action is to put the patient on a mild fast and to administer medicines that have a bitter taste, hot potency, and pungent post-digestive taste, all of which help to reestablish the digestive powers. Sweating might be recommended to aid the digestive process. The second step of the treatment involves the purification therapy of Panchakarma. The two preparatory actions, oleation and sweating, are administered first to dislodge and soften the Ama. The remaining five procedures are performed over a period of a week, during which time the patient maintains a strict diet. These will eradicate the dislodged Ama from the system, and restore the balance of the doshas, especially Vata. One of two types of enema is used, depending upon the amount of Ama present. If Ama persists, an enema with decoctions is administered until Ama is removed when an oily enema is given. After the Panchakarma therapy, the patient should assume a regimen that includes avoiding sleep during the day and after meals, as well as heavy food that hinders digestion. Effective treatment of arthritic conditions, especially in children, has included wet massage therapy in conjunction with the enemas of Panchakarma. The affected areas are patted with a cloth bag filled with rice that has been cooked with milk and herbs. Massages with oils also are routinely prescribed.

**Conclusion**

Traditional Ayurveda is a sophisticated system of medicine that has been practiced in India for over 2,500 years. Like other forms of alternative and complementary medicine, it focuses on the whole organism and its relation to the external world, in order to reestablish and maintain the harmonious balance that exists within the body and between the body and its environment. In this paper only a glimpse of this ancient form of medicine has been offered; there is much to be learned from a deeper exploration of Ayurveda. Studies on Ayurveda and related traditions in Tibetan medicine are being undertaken in India, Europe, and North America. The recently established Indo-Tibetan Medical Project at Columbia University, New York, is devoted to scientific and scholarly investigation and public education. Very few reliable sources for traditional Ayurveda are
available in English. Most of the sound works are by and for specialists and are virtually inaccessible to the reader without knowledge of Sanskrit. In order to provide information on Ayurveda, this article is specifically aimed at informing the general public and health care professionals.

For further reading: