

REVIEW ARTICLE

Ayurvedic medicine and epilepsy

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Abstract

Ayurvedic medicine is an Indian ancient art of healthy living. Its concept of epilepsy has many similarities with that of modern medicine. It predates Hippocrates and is relatively free of superstition and supernatural causes. A large segment of Indian population to-day continue to prefer Ayurvedic rather than modern medicine for treatment of epilepsy. There are few scientifically based trials on the Ayurvedic medicine in epilepsy.

Key words: Ayurvedic medicine, epilepsy

What is Ayurvedic medicine

Ayurveda is based on the Vedic philosophy of long healthy living, prescribed in the Atharva Veda, a text on Hindu philosophy. Ayurveda mainly emphasizes the prevention of sickness and disease rather than treatment. However, many diseases are diagnosed and cured by the Ayurvedic concepts of *nidan* (diagnosis) and *chikitsa* (management). The human body comprises three constituents known as the *tridoshas*. They are *vata*, relating to physical movement and sensory perceptions; *kapha*, moisture in the body tissues and sensory organs; and *pitta*, connected with metabolism and functioning of the digestive process. The three *tridoshas* are subdivided into five subconstituents, each governing the functioning of the entire human body. To stay healthy, the *tridoshas* need to function in harmony with each other as well as with the five basic elements of the universe. They are: earth, water, fire, air and ether which the human body is composed. Most illnesses arise from an imbalance in the functioning of any one or two of the *tridoshas*. Ayurvedic medicines strengthen the body's intrinsic system to fight the disease, and that is the basic concept of Ayurveda.

The early Ayurveda physicians realized that the body constantly regenerates itself and the new tissues needed to be nourished. This replenishment depends on the food we eat, how we eat, when we eat and how well our digestive system functions. Certain food combinations

should be avoided by everyone. Thus it is possible to prevent many challenging diseases of modern life by following the rules of Ayurveda which include a suitable dietary and seasonal regimen and a proper daily routine.¹ Instructions on diet are the major topic of conversation between the physician and the patient.

Ayurveda, a traditional Indian form of medicine practiced for several centuries, has been co-existing with Unani, naturopathy, homeopathy, and allopathy (modern medicine). The Unani system was brought to India by the Arabs. It has many similarities with Ayurveda. Both systems make use of medicinal plants. Ayurveda has been gaining acceptance in the Western countries because of the side effects at times associated with allopathic drugs. Intensive research has been undertaken in recent years by several pharmaceutical companies to develop more effective drugs from Ayurveda.

The Ayurvedic view on epilepsy

The Indian equivalent of epilepsy is *apasmar*, which finds its mention in the ancient Vedic and post – Vedic literature, the Charaka and Sushruta created around 1000 BC. These works provided the basic understanding and description of this disease, recording the aetiopathogenesis, symptomatology, classification and management of *apasmar*. The Rig Veda (2000 BC) and the Atharva Veda (1000 BC) also mentioned the disease and attribute its genesis to various non-human forms such as spirits, goblins,

gandharvas, *yakshas* and *rakshasas* which possess the human body. Most Western Historians of Medicine attribute Hippocrates as the first to describe epilepsy and delineate from the earlier concept of a supernatural disease in around 400 BC. This is likely due to ignorance of the ancient Vedic literature. The English translation of the Charaka Samhita written in Sanskrit about 5000 years ago was done by Prof. Priyavarat Sharma in 1981.¹

Definition

Charaka provided a definition of epilepsy almost conforming to the present concept, in the following words: "Clinical experts pronounce that epilepsy is a disease characterized by derangements of the mind and memory. Therefore, victims of this disease experience disturbance of loss of consciousness and undergo all kinds of ugly scenes (convulsive movements)."

Nomenclature

Originally, the word "grand mal" was spelt "grahn mahl" (Dorland's Illustrated Medical Dictionary). Grand mal was used to denote a "*grahan maha*" or "*maha grahan*" literally means a "major attack". The English word "grand" also means "exalting" or "magnificent", but there is nothing as such about an epileptic attack. Epileptic seizures in fact produce an ugly scene, as alluded to by Charaka (Loccit). It is possible that the earlier scholars of modern western medicine have taken the word "grand mal" from the Sanskrit terminology "*grahan maha*" or "*maha grahan*"

Classification

Almost a century ago, John Hughlings Jackson classified epilepsy into four subgroups: grand mal, petit mal, psychomotor and Jacksonian sensory. Charaka and Sushruta also classified epileptic seizures into four major groups caused by *vata*, *pita*, *kapha* and *sannipata*. To quote Charaka and Sushruta: "In human beings, four types of epileptic seizures are observed. The first three varieties are related to the derangement of three humours, namely the *vata*, *pitta* and *kapha* and the fourth variety is caused by their combined effects (*sannipata*)." The relationship between the ancient Indian wisdom and modern classification of epilepsy is uncertain. However, with the advent of electroencephalographic techniques and other laboratory aids, epilepsy

has been further subclassified into other subtypes and syndromes.

Aetiopathogenesis

As far back as 800 B.C., Sushruta assigned certain exogenic causes for epileptic fits and proposed the basis of epilepsies as follows: When etiological factors of a disease cannot be ascertained or when the disease is cured spontaneously without any medication, in such cases, some scholars assign exogenous causes of the epilepsy, unrelated to humoral disorders (probably equivalent to the cryptogenic variety in present day classification).

Sushruta however, argued that the causes of this disorder must be looked into, because there can be no seedling without water or rains. In the same manner, there can be no attack of epilepsy without a particular cause or etiology. Charaka proposed that epilepsy may be related to certain circulatory disturbances of the brain as follows: "Pathological alterations of arteries (*dhamani*) due to *dosha* (derangements of *vata*, *pitta*, and *kapha*) produce certain disturbances of the brain, thereby a victim is over-powered by epileptic seizures or loss of memory and consciousness." Sushruta also mentioned other causative factors such as anxiety, mental trauma, apprehension and fear as follows: "Excessive indulgence of sex, anger, sorrow, fear, excitement and mental trauma-these are causes of seizures in human." A similar statement from Charaka added: "In man, epilepsy is borne from the consumption of vitiated food, accumulation of morbid factors, derangements of *satwa*, *raja* and *tama*, disorders of brain, and also by excessive indulgence in sex, anger, fear and excitement. Similarly, mental trauma is a major cause of epileptic seizures. The symptoms of the diseases which are mentioned are symptoms, not diseases."

Clinical features

Charaka described the prodromal symptoms of epilepsy as follows: "Epileptic seizure is preceded by aura, a subjective phenomenon denoting the onset of an epileptic attack. During such episodes, a patient perceives some imaginary shapes or figures (visual aura), or hears certain peculiar sounds (auditory aura) before the onset of an epileptic attack." Charaka's descriptions of visual and auditory aura were based on his own graphical records of these phenomena. The patients would then suddenly fell on the ground. His eyes and eye brows were drawn to one side, froth and saliva dribbled

from the mouth and hands and feet were thrown into convulsions. Soon after, the patient regained his consciousness as if he has woken up from a deep sleep. Other prodromal symptoms of epilepsy described included – throwing aside of eyebrows, frequent abnormal movements of eyes, hearing noises in the absence (of external sound), excessive oozing of saliva and nasal mucus, aversion to food, anorexia, indigestion, tightness in cardiac region, distension of abdomen, debility, tearing pain in bones, body-ache, mental confusion, darkening of vision, fainting, giddiness and dreams of narcosis; dancing, piercing, aching, trembling and falling.

As mentioned earlier, Charaka delineated special features of four different types of epilepsy: *vatika*, *patina*, *kaphaja* and *sannipatika* epilepsy. For example, *vatika* epilepsy was described as frequent fits, regaining consciousness instantaneously; protruded eyes, crying, emitting froth from the mouth, excessively swollen neck, puncturing pain in head, irregularly contracted fingers, unstable hands and feet; reddish, rough and blackish nails, eyes, face and skin; vision of unstable, fickle, coarse and rough objects.

A description of clinical manifestations of epileptic attack from the Sushruta is as follows: By sudden blockade of the channels that control the consciousness; and also by the derangements of *raja* and *tama*, the victim is overpowered by alterations of the mind and memory. As a result, he falls on the ground and throws his hands and feet (convulsion). His eyes and eye brows are distorted, eye-balls become eccentric, teeth are closed and saliva dribbles from his mouth. Soon after, the patient regains his consciousness. This condition is known by the name of epilepsy (*apasmar*). Clinical manifestations of the *vatika* epilepsy by Charaka resemble the symptomatology described by Sushruta.

Treatment

The observations made in Charaka-Samhita on treatment are as follows: "Epilepsy is caused by *vata*, *pitta*, *kapha* and *sannipatika*. The wise physicians treat the curable ones cautiously with strong evacuative pacificatory measures." When epilepsy was thought to be caused by an exogenous factor in addition to a disturbance of a *dosha*, the physician prescribed a general treatment to alleviate the exogenous cause. In addition, a more specific treatment was directed at correcting the disturbances of the *dosha*, as the goal in Ayurveda was correcting the whole

body: physical, mental, and spiritual, and not just treating a symptom. However, the physician was directed to first take steps for the "awakening of the heart" (meaning waking the patient from unconsciousness) by using drastic measures to clear those *doshas* that block channel of the mind. He was instructed to treat the *vatika* type predominately with enema, the *pattika* with purgation, the *kaphaja* with emesis. The *sannipatika* type remained the most difficult to treat.² The therapy should not pacify one disorder but at the same time give rise to some other disorder causing side effects. Different plant parts, root, stem, leaves, flowers, seeds and bark have been advocated for treatment.^{3,4} The commonly advocated formulation called *mahapanacagavya ghrta* is described by Charaka. Both *pancamulas triphala*, both types of *haridra*, *kutaja bark*, *saptaparna*, *apamarga*, *nilini*, *katurhini*, *aragvadha*, *phalgu* (root), *puskaramula* and *duralabha* were used. Eighty grams of each should be boiled with 10.24 liters water until it reduces to one-fourth. Ten grams each of *bhargi*, *patha*, *triaktu*, *trivrt*, *nicula*, *gajapippali*, *adhaki*, *murva*, *danti*, *kiratatikta*, *citraka*, two types of *sariva*, *rohini*, *bhutika* and *madayantika* should be powdered and added as paste. To this (decoction and paste) 640gm of ghee is added and the mixture is cooked with equal quantity of cow dung juice, sour curd, milk, and urine. This is known as *mahapanacagavya ghrta* and is like ambrosia. It is efficacious in epilepsy and should be taken daily.

There are several similar formulations described in Chikitsasthanam. An example is as follows: One should use oil and garlic, satavari with milk, brahmi juice, kustha juice or vaca with honey. Epilepsy is difficult to treat. The condition is chronic and the medicine should be applied firmly. The epileptic along with the insane should be kept from risky situations like water, fire, tree and hills because they take away the life immediately.

Other authors mentioned the cleansing concept of the disorder. Cleansing in the Ayurvedic system include treatments for purgation, steaming, oil bath and massaging). After the patient was cleansed, drug formulation to alleviate epilepsy are administered. Several formulations for cleansing contained ingredients which included *gandhaka* (sulphur), aged ghee (butter fat), herbs such as *Achyranthes aspena*, *Holanthena antidysenterica*, *Alstona scholaris*, and *Ficus carica* and blends of herbal formations such as *Pancamula* and *Triphala*. The

pharmaceutical processes and preparations involved fermenting, extracting, preparing inhalable substances, filtrating, heating in a closed cavity, purifying, and pillmaking.^{2,5} General measures to correct exogenous factors such as proper hygiene and balanced diet were also recommended.

The present status

A trial with Ayurvedic drugs for epilepsy (*apasmara*) was done recently in Bangalore, India.⁶ Ayush 56 alone did not show encouraging results, the other drugs, Ayushman 13,14, Dhanvantaram 101 and Ayushman 18 were also studied. The preliminary studies indicated that the Ayurvedic drugs were marginally effective in drug resistant epilepsies.⁶ Plants which are commonly used in epilepsy today are: Bramhi (Indian pennywort), satawari (*Asparagus racemosus*), vaca (sweet flag), mulethi (*Glycyrrhiza alba*), agastya leave (*Sesabania grandiflora*), garlic, ginger, zing (*Asafoetida*), pumpkin, *Uncaria rhynchophylla*, and *Gastrodia elata*. These substances are also used in other disorders suggesting a very broad spectrum of action.

In a recent study conducted in Kerala, South India, it was found that 64% of the respondents preferred Ayurvedic treatment as compared to 78% who preferred modern medicine in the treatment of epilepsy.⁷ In the era where evidence based medicine is the gold standard, to-date there are not many scientifically based studies on ayurvedic medicine in epilepsy. Widespread use of these drugs without scientific evidence may be hazardous.⁸ Also many physicians practicing traditional medicine prescribe anticonvulsants under the garb of Ayurvedic preparations which result in complex drug interactions and side effects.

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