

## **MODEL OF CHAKRAS SYSTEM**

### **CHAKRAS AND ACUPUNCTURE CHANNELS**

This model will describe electric processes that occur within the "thin (etheric) body" (the concept of Oriental doctrine) to form Sushumna (chakras system, Chitrini and Vajra nadis) and to determine the forms of spinal brain and spinal cord.

There are 2 groups to be revealed in chakras ( or tattva rays) description – 3 yin and 3 yang chakras of the model, in result of which the connection between central (system of chakras) and peripheral (system of acupuncture channels) structures of organism can be presented.

It is assumed that recognizing the regularities of energy distribution in the chakras and determination of those systems functional interdependencies can become a fundamental principle for deploying new methods of healing contingent upon the individual frequency characteristics of the organism.

#### **Introduction**

According to philosophy of yoga man is a microcosm that fully reflects the life of macrocosm and by knowing oneself one is able to recognize the true reality of Universe. In theology this reality is determined as Spirit (Pure Consciousness) from which through it's force (Shakti) or dynamic aspect of Spirit all the creative expressions of Universe have been originated.

According to this teaching, it is possible to achieve the highest existence by connecting or merging human personality with Universe Consciousness.

The process of yoga assumes the expansion of level of Consciousness that leads to opening of inner substance of man which is Pure Consciousness ; and all the forms of yoga (hatha yoga, radja yoga, jnana yoga etc) – are different methods of spiritual practice leading to this cherished target.

Kundalini- yoga is a special form of tantric yoga where yoga is being exposed by penetrating into 6 centers of body (lotos or chakras (circle or ring - sanscript)) of cosmic force of Kundalini (curved into ring - sanscripts). This force is described as Pure Consciousness, the primary Nature (Prakriti), "Spritual force " etc. This very force "maintains all beings of the world by means of inspiration and expiration".

Creative force of Kundalini-Shakti in the human body is symbolically pictured as a snake that is napping in the lower center of Muladhara chakra. After wakening she goes up to connect with Shiva (static aspect of Universe Consciousness), which is being exposed in the highest brain center of Sahasrara lotos. Upon this rise Kundalini activates chakras that are located along the spinal cord.

Traditionally chakras are related to nerve plexus and endocrine glands. However, despite an amazing correspondence of formal description of the given system with anatomic location of nerve plexus, and also correspondence of their mental characteristics with psychic functions and processes – it is impossible to categorize chakras in only one science discipline

(physiology, psychology, philosophy etc). "To do it this way, means not only to spoil the thing, but destroy it because physiology doesn't recognize chakras, because they exist separately as the centers of Consciousness and activity of sukshma-prana-Vayu or thin vital force , although they deal with rough body that is referred to them " (sir J.G.Woodroffe).

In Buddha tantras they mention 4 chakras: navel, heart, throat and brain (there are different opinions yet about the number and location of these chakras). The first 3 chakras are the locations of 3 Buddha bodies : root , thin and dense (rough) ones. The root body or the body of semen – is bodiless Spirit that enters the womb at the moment of conceiving and starts embryo development. It will generate thin and rough bodies later on.

Thin body that appears within 2 months of embryo development consists of numerous invisible vessels (channels) with circulating life energy. There are 3 vessels called forming that appear the first in the developing embryo. The main vessel- flow goes from head to sexual organs. The other 2 forming vessels go close to the right and left sides of the central vessel. The 3 forming vessels cross each other and make branches to create chakras. As a result a net of smaller vessels (managing vessels) appears around chakras , that are responsible for functionality of sense organs, "generating 6 kinds of sensual comprehension", responsible for regeneration etc. [1]. Formation of dense or rough body is stimulated and supported by life energy of thin body.

The most detailed teaching of chakras is represented in Sat-Chakra-Nirupan written in XVI century by Purananda Swami.

According to this source, there are 6 main chakras:

Muladhara (mula – root, dhara – base );

Svadhithana (sweetness, one's own dwelling place);

Manipura ("resplendent gem ", city of gemstones);

Anahata ("unstruck" or "unhurt");

Vishuddha (pure, clean);

Ajna (to know, to recognize, to command) and

brain center Sahasrara (thousand petaled)

From numerous vessels of thin body there are 3 forming vessels called Ida, Pingala and Sushumna to be the most important according to Indian tradition.

Sushumna originates from the base of spine and rises up through spinal cord. In the area of middle brain (Ajna-chakra) it divides into branches that come to Brahma-randhra by different ways (this spot is associated with the top of the head and considered to be 10<sup>th</sup> gateways of the body). There are 3 nadi channels passing through Sushumna – Vajra nadi, Chitrini nadi (or Citrini nadi) and Brahma nadi. *"Page 2 of sat\_chakra\_Nirupana says that inside Vajra which itself is located inside Sushumna, there is Chitrini which is subtle as a spider's thread, and pierces all the Lotus which are placed within the backbone ."* The other statement on page 51 is a bit confusing saying that lotos petals are located in/on Brahma nadi. *Vishvanandha commented this by citing Maya-Tantra and saying that all 6 lotoses are connected to Chitrini nadi.*

*From all this it becomes apparent that lotoses are located in the spinal cord, in Sushumna, but*

not in surrounding nerve plexus [2]. Sushumna is also called Brahma nadi ,mahapatha (great way),shmathana (cemetery), shambhavi (one of the names of Durga), madhyaramarga (middle way). In this article we 'll use terms Brahma nadi for central channel and Sushumna for multi-layer structure.

The two other vessels Pingala and Ida also begin from base of spine, reaching Ajna chakra and going through nose channel ending in the left and right nostrils accordingly. There are different versions regarding their real location; some researchers state that these channels are out of Meruanda (spinal channel), the other one gives a reference to Nigama tattva Saru stating Ida and Pingala are inside Meru [2]. If taking into account that chakras are being created in the juncture points of 3 forming vessels and beaded on Chitrini nadi, then we should accept the logics of the second statement, that Ida and Pingala are inside the spinal cord. Unfortunately, there is no accurate answer to the question : which origin these channels are related to, feminine or masculine one?

The following citate of Arthur Avalon (Sir John Woodroffe), the translator, indicates the contradiction and undefined situation '*In the space out of Meru (spine) on the left and right there are 2 shira (nadis) : Shasi (moon, t.e feminine origin or Shakti-rupa nadi ida, on the left) and Mihira (sun or masculine origin, pingala, on the right) (Satcakranirupana, 1-3; tr. Arthur Avalon, the Serpent Power. Madras, 1924, p.4 – 12.)*

*According to Sammohana -tantra (citing « Shatchakranirupana »), ida is Shakti, and pingala is Purusha. In other sources they say that lalana (ida) and rasana (pingala) pass semen and egg respectively. («Sadhanamala», «Khevajra-tantra » and «Kherukta-tantra» are cited by Dasgupta, Introduction to Tantric Buddhism, p. 119.) And semen is the substance of Shiva and Moon, and menstrual blood (associated with « rajas » of women) is the substance of Shakti and sun. («Gorakshsidhantasangraha », cited by Dasgupta,p. 172).*

*In the comments on « «Dohakosha » of Kanhapada it is said that moon was born from masculine semen, and the sun was born from egg' [3].*

### **Formation of Sushumna**

Chakras are symbolically described via sound vibrations (mantras), geometric figures (yantras), god, sense organs , organs of actions etc, and also through primary elements or tattvas. Each tattva has definite number of rays; from 6 chakras we have 3 groups – Fire, Sun and Moon (table 1). In Taitirja-aranjak they say : Devi- the cause of creation, protection and destroyment of Universe is here (Sahasrare), always connected with Sadashiva, which is the highest of all tattvas , eternally shining. Rays coming out of her body are uncountable ...360 of these rays illuminate the world in the form of Fire, Sun and Moon. These 360 rays are formed as follows : Agni (Fire) 118, Sun 106, Moon 136» [2].

**Correspondence of chakras, tattvas and gunas**

**Table 1**

Chakra		Element tattva	Number of tattva rays	Number of group rays	Group	Guna
1	Muladhara	Earth	56	118	Fire	Tamas
2	svadhisthana	Water	62			
3	Manipura	Fire	52	106	Sun	Radjas
4	Anahata	Air	54			
5	Visuddha	Ether	72	136	Moon	Sattva
6	Ajna	Maha-tattva	64			

Moon, Sun and Fire symbolize 3 fundamental qualities of world creation (3 gunas – sattva, radjas, tamas) [2], biological analogs of which are 3 doshas of Indian Ayurveda medicine kapha (phlegm or mucus), pitta (bile) and vayu (pneuma or wind).

Correspondence of chakras and doshas can be defined by their location, given in Tibetan treatise Chjud-shek (table 2).

*"Phlegm is standing on brain, located at the top,  
bile is standing on diaphragm, located in the middle,  
wind is standing on lumbus, located at the bottom"* [4].

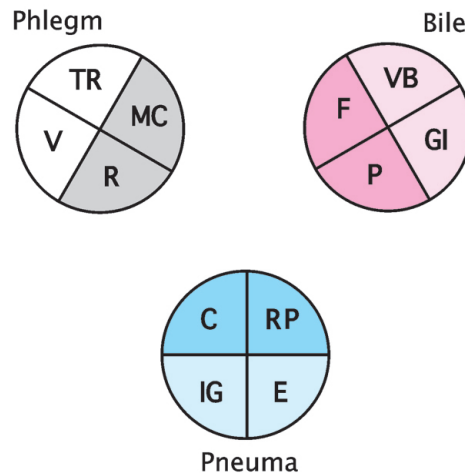
**Correspondence of chakras and 3 doshas**

**Table 2**

Chakra		Chakra Location	Dosha	Location of Doshas
1	Muladhara	Base of the spine	Pneuma	<i>wind is standing on lumbus, located at the bottom</i>
2	Svadhisthana	Between pubic bone and navel		
3	Manipura	Navel area	Bile	<i>bile is standing on diaphragm, located in the middle</i>
4	Anahata	Heart area		
5	Visuddha	Throat	Phlegm	<i>Phlegma is standing on brain, located at the top</i>
6	Ajna	Glabella		

According to Common theory of Oriental medicine 3 doshas are functional groups for 12 classic meridians (fig. 1, table 3) [5]. Each dosha is related to 4 meridians and 2 chakras (table 2). Therefore, 1 chakra is connected with 2 acupuncture channels (meridians). In this regard there are several ways of connections available; in order to make the grounded choice let's go back to tattvas (table 1). We can see that the total sum of tattva rays for 1,3, 5 chakras is equal to

the sum of tattva 2,4, 6 chakras :  $56+52+72 = 62+54+64 = 180$ . This way these 2 groups (2, 4, 6 and 1, 3, 5) with equal potential of (180), being a part of the integrity ( $180+180=360$ ) are missing the sign of opposite to be considered as the concept of yin /yang. This sign is revealed further, in result of which we can represent the connection between chakras and meridians (table 4).



**Fig. 1. 3 groups of 12 meridians**

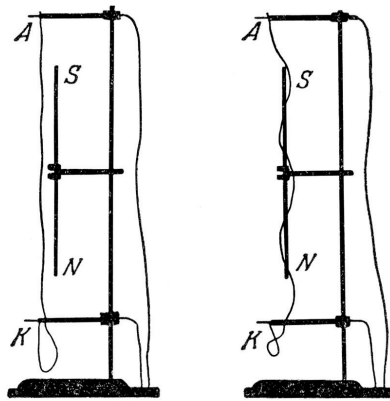
**3 doshas and 12 acupuncture channels**

**Table 3**

<i>Dosha</i>	<i>Grouping of acupuncture channels</i>
Pneuma	Small intestine, Heart, stomach, Spleen-pancreas IG - C - E - RP
Bile	Gall bladder , Liver, Large intestine, Lungs VB - F - GI - P
Phlegm	Ur. Bladder , Kidney, 3 heaters, Pericardium R -V - TR - MC

According to tantras, Kundalini Shakti rises along Brahma nadi; the flow in the central channel of Sushumna is pointing up. There are 2 flows that are passing via Ida and Pingala – fresh, wet, moon flow (white), spreading the system by nectar and hot, dry, sun flow (red), which dries out all the system, moistured by nectar, that is 2 polar flows : prana and apana, one is down-top , the other is top-down. Directions of flows in 3 main vessels are the sign of electromagnet interactions between them. The graphic example is shown on fig. 2.

The core magnet NS is firmly fixed; a flexible metal pipe KA is hanged near it. Upon current passing through it the conductor is positioning at 90 angle towards magnet : the strip embraces the magnet by spirals [6]. It is not difficult to imagine that by changing the direction of the current, the strip will embrace the magnet in opposite direction as well. In this sample the vertical lines of magnet field along the NS axes are similar to Brahma nadi, and spiral conductor is similar to Ida and Pingala depending on direction of the current going through it.

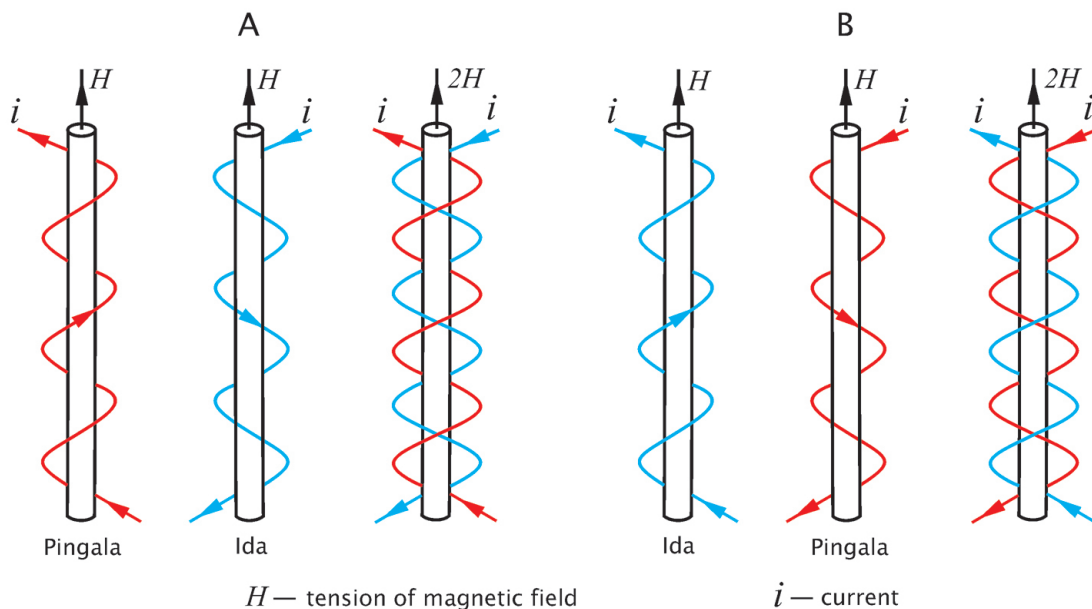


**Fig. 2. Electromagnetic interaction of core magnet and conductor with current**

Vectors of magnetic field tension of upward and downward currents are pointing up (fig. 3). These currents may correspond to both Ida and Pingala. Therefore, there are 2 possible variants of the model

1. The current of Ida is pointed down, and Pingala's – up fig 3A.
2. The current of Ida is pointed up, and Pingala's -down fig 3 B

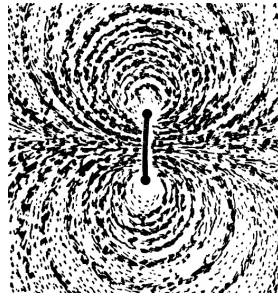
In the first case the right half of the body will match Moon (Ida), and left half – Sun (Pingala). In the second case vice versa. The first variant of model (considered in this article) assumes that Ida symbolizes the masculine origin, and Pingala – the feminine one. And the variant 2 – vice versa. In any case the end result as a connection of meridians and chakras is the same not depending on variations.



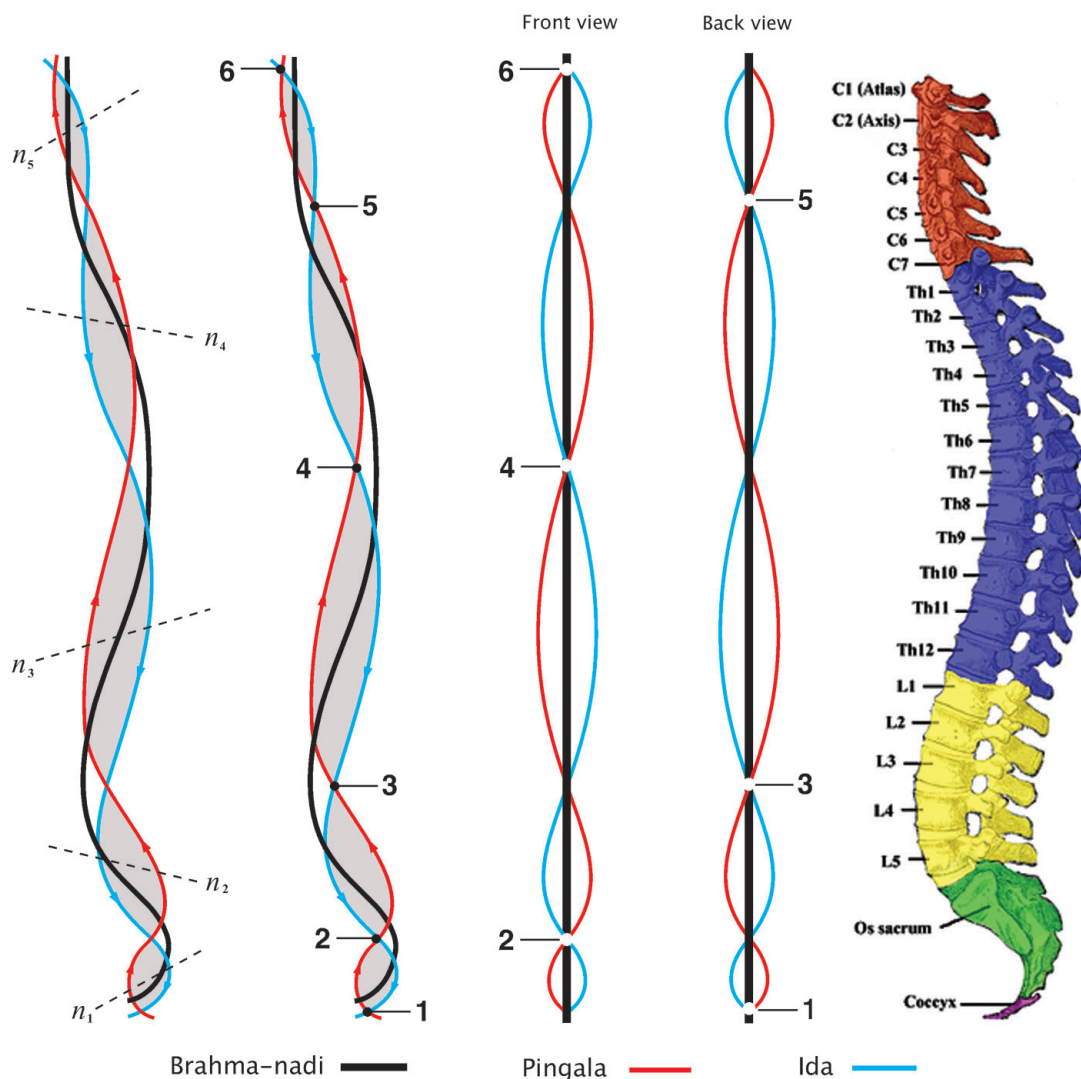
**Fig. 3. Vectors of magnetic field tension of upward and downward currents**

The loops of spirals of Ida and Pingala cross each other 3 times from 2 sides, forming 5 planes that represent contours of currents. As known, force lines of magnetic field of circuit

current pass at 90 angle towards the plane of conductor (fig. 4) [4]. By this reason Brahma nadi (the flexible magnetic and/or vector 2N (fig. 3)) curves 5 times towards normal line of each plane, picturing the known contours of central channel of spinal cord (fig. 5).



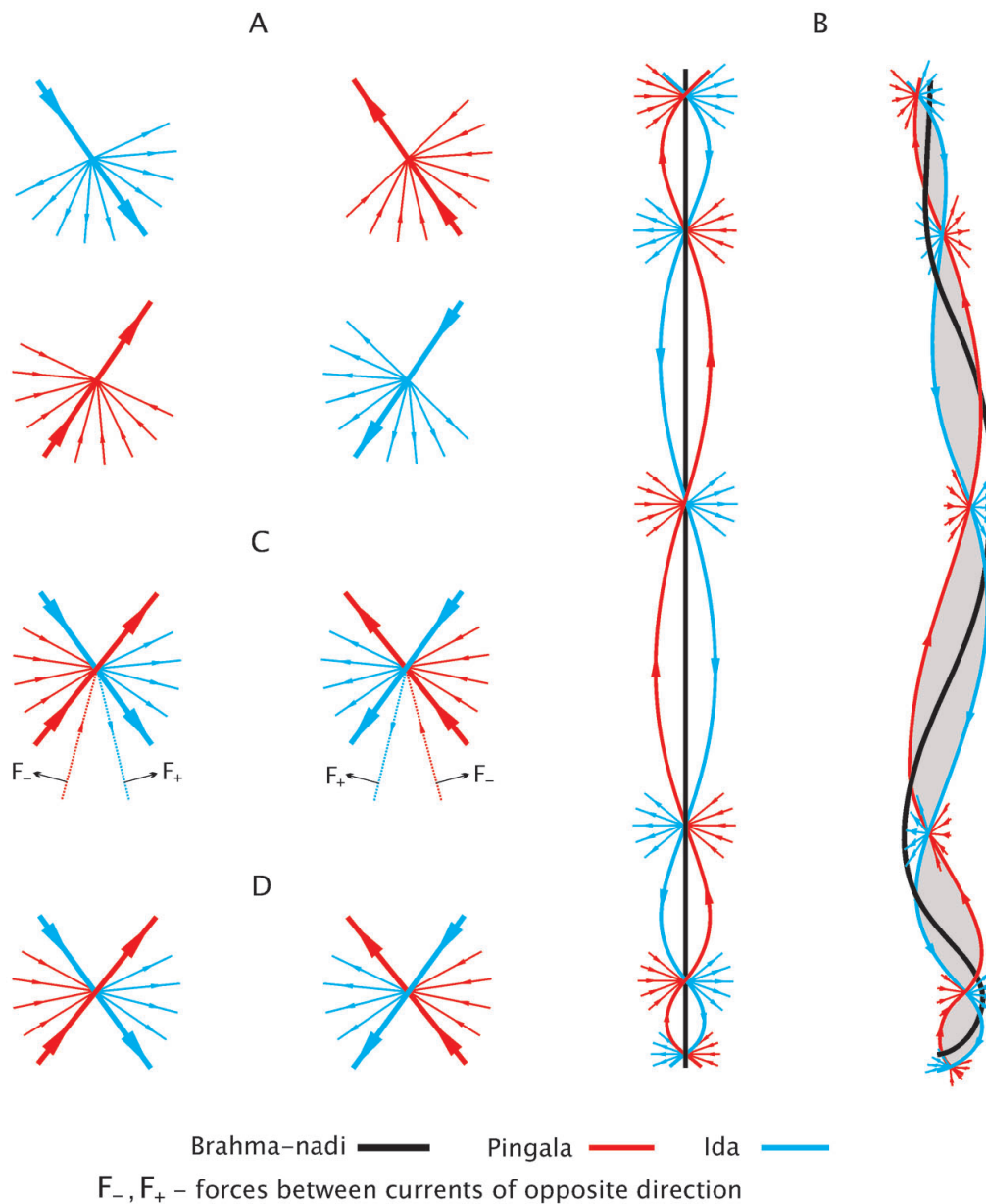
**Fig. 4. Force lines of magnetic field of circuit conductor with current**



**Fig. 5. Central complex. Electromagnetic interactions of 3 main vessels**

Formation of chakras begins from the process of Ida and Pingala separation at the points where they cross each other, when these 2 vessels pass on some distance from each other : as known if currents are in the same direction, they are attracted to each other, and they repel

if they are in opposite direction . Newly formed branches (petal vessels or petals) grow to direction of vortex generating them (fig. 6A). The closer they come to each other, the stronger are repel forces between petals of Ida nad Pingala ( fig. 6 C), in result of which the area of separation is limited within definite borders (fig. 6 B, D).



**Fig. 6. Separation of Ida and Pingala**

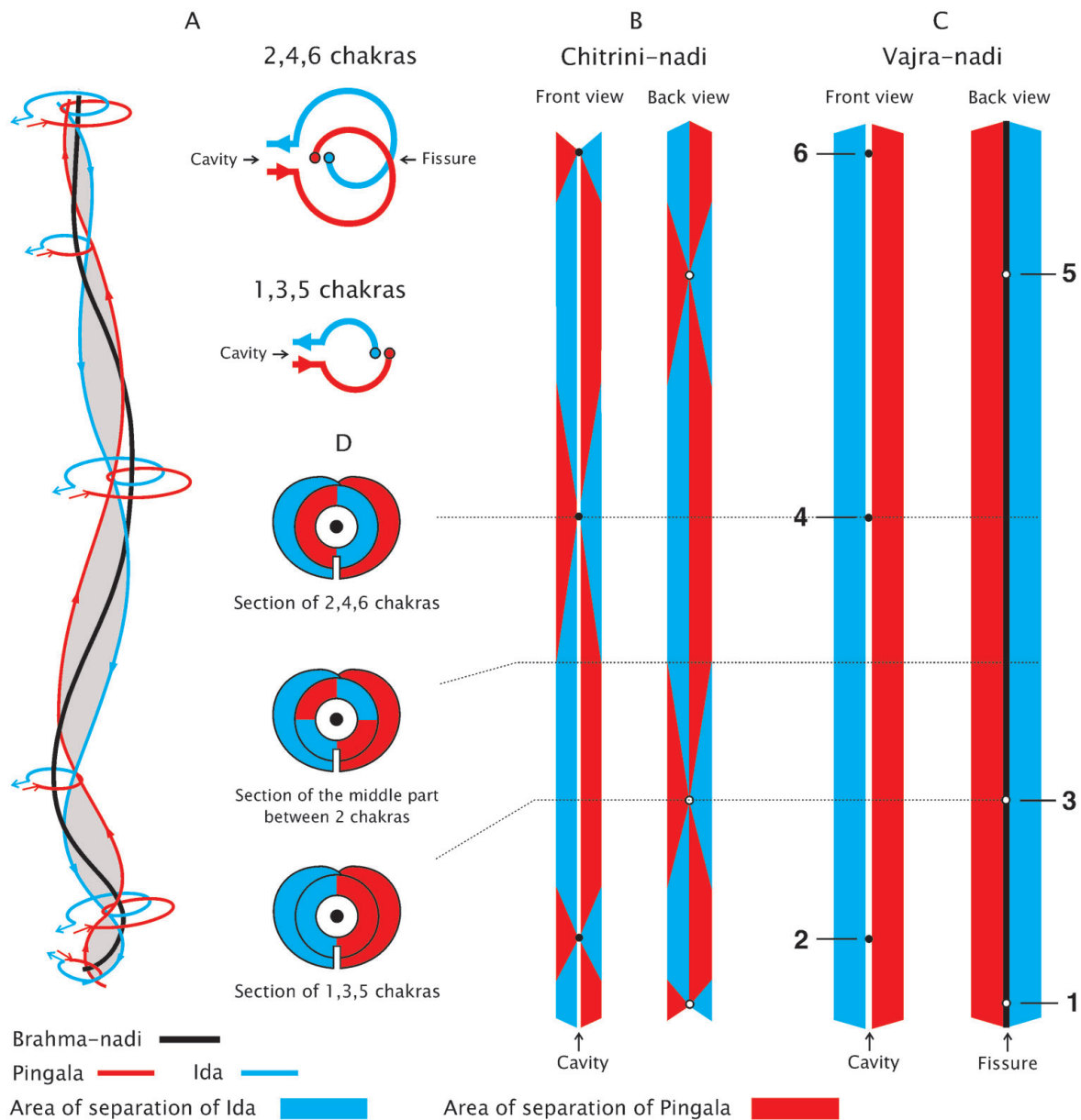
Later on these "petal vessels" embrace the central complex (Brahma nadi, Ida and Pingala) and meet at the opposite side, forming vessel layer which is coordinated with Chitrini nadi based on sanscript sources. ("all 6 lotos petals are connected to Chitrini nadi" etc)(fig. 7A,B). Vajra nadi is formed by petals of 2,4,6 chakras, that embrace the central complex secondary time and meet at front middle line (fig. 7 A,C).

At the same moment right along the line of vessels' transfer from the first layer (Chitrini) into the second one (Vajra) a fissure is coming out, the projection of which to the spinal brain is associated with the backside middle fissure (fig. 7A). The vessels of polar currents meet at the



front middle line, repel each other and create space at the front side as a cavity in the spinal brain to exit out of Sushumna.(fig. 7 A,C,D).

Later on these vessels make branches and spread all over the body to reach it's surface as acupuncture and biologically active points.



**Fig. 7. Formation of Chitrini-nadi and Vajra nadi**

The right side of Vajra nadi consists of only Ida vessels, and the left side- of only Pingala vessels; right and left halves of Chitrini nadi have the equal number of Ida and Pingala petals (fig. 7B,C).

In summary we came to the conclusion that right half is dominated by Ida vessels, and left side - by Pingala vessels (traditionally, the right half of the body is considered to be of masculine origin, and the left side- of feminine one).

On fig. 5-7 we can see that chakras 2,4,6 are located along frontside of Brahma nadi, and 1,3,5 chakras- along the backside (the sign of opposite), therefore 2,4, 6 chakras are yin, and

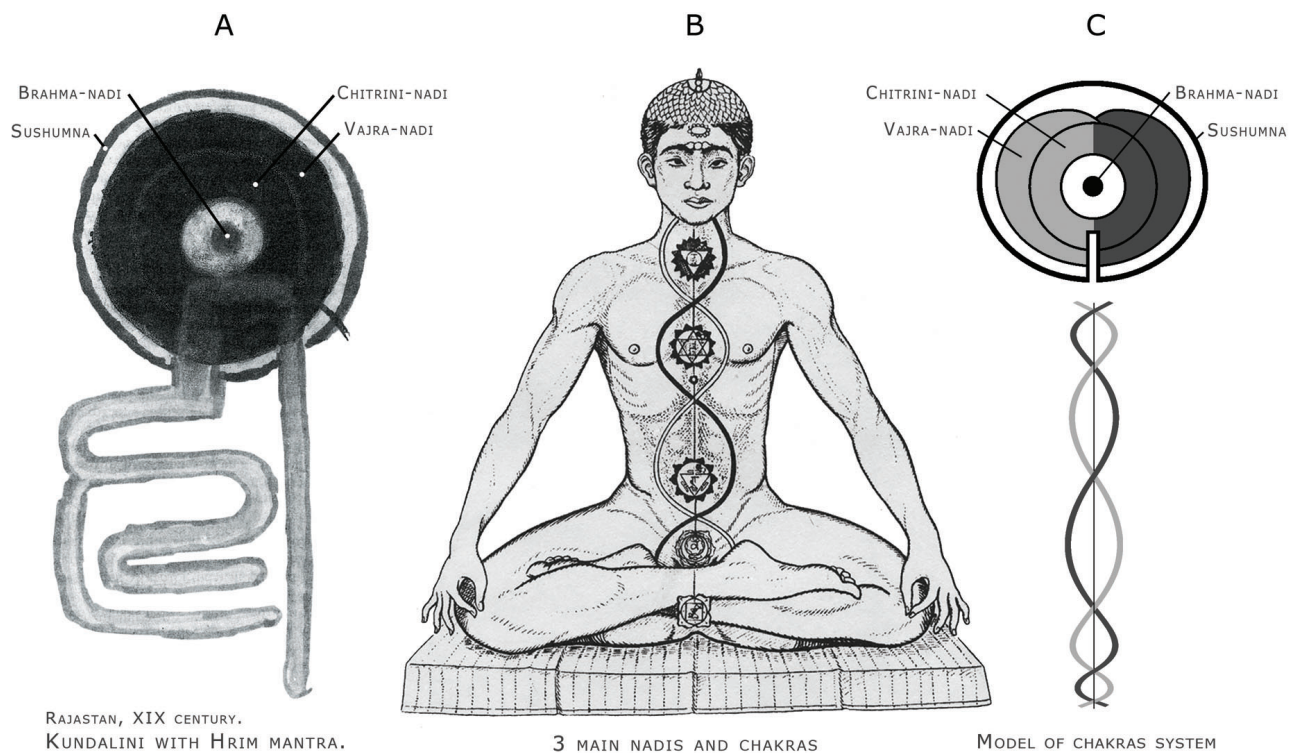
1,3,5 are yang. Assuming that yin meridians originate from yin chakras, and yang meridians – from yang chakras and taking into consideration all above factors, we can represent the interconnection of 2 systems in table 4.

**6 main chakras and 12 acupuncture channels**

**Table 4**

Chakra		Acupuncture channel
1	Muladhara	Stomach and small intestine E, IG
2	Svadhithana	Heart, spleen -pancreas C, RP
3	Manipura	Gall bladder and large intestine VB, GI
4	Anahata	Liver and lungs F, P
5	Visuddha	Ur. Bladder and 3 heaters V, TR
6	Ajna	Kidney and pericardium R, MC

Fig. 8 Kundalini, 3 main nadis (8 A,B) and analog details of given model (section of Sushumna on the level of 1,3,5 chakras and central complex) Fig. 8C.



**Fig. 8. Sushumna**

## Conclusions

1. The concept of yin and yang is applicable to the chakras system as well.
2. Chakras, nadis, acupuncture channels and biologically active points are an integral part of the whole vessel system (*thin or etheric body*).
3. Vital energy (prana or tsi) that circulates through invisible vessels of *thin body* has electromagnetic features.
4. Forms of rough body (in particular, forms of spinal brain and spinal cord) are predetermined by electric processes of the *thin body*.

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