TO STUDY CONCEPT OF GENETICS IN AYURVEDA

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INTRODUCTION

Ayurvedic concepts are very ancient but fix & never be changed from ancient time. Now-a-day also these concepts are proved on the modern basis. Heredity is defined as peculiarities of one generation are carried to next generation. Thus to transfer genetic material is called as heredity. According to ayurveda most important carrying material of this information is shukra & shonita. Shukra & shonita is nicely mentioned in Ayurveda. Also its parts beejbhaga, beejbhagavayava described, which are similar to chromosome & gens concept of modern science. Various genitic diseases are developed due to any deformity in the of beejbhaga, beejbhagavayava. These factors also carry same type of deformity or disease in next generation. The study of Beej & beejbhaga, Beejdosha is useful for supraja & to cure various congenital diseases.

Keyword: Heredity, genetic, garbhasharir, shukra, shonit, beej, beejbhaga.

ABSTRACT

Now-a-day Genetic study is useful for various diseases. Also new branches are seen to show genetic configuration. Hereditary is seen from ancient times. Ayurveda is old pathy & whose principles are still applicable & proven on the basis of modern concept. Hereditary science is one of branch which is well developed now. Very ancient time heredity is one of the developed science & also advanced science. It is mentioned in all pathies and in ayurveda, it is very nicely explained in all samhitas. Heredity means to carry peculiarities of father or mother to their son or daughter. Thus to transfer genetic material is called as heredity. According to ayurveda most important carrying material of this information is shukra & shonit. Shukra & shonita is nicely mentioned in Ayurveda. Also its parts beejbhaga, beejbhagavayava described, which are similar to chromosome & gens concept of modern science. Various genitic diseases are developed due to any deformity in the of beejbhaga, beejbhagavayava. These factors also carry same type of deformity or disease in next generation. The study of Beej & beejbhaga, Beejdosha is useful for supraja & to cure various congenital diseases.

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INTRODUCTION

After formation of embryo when all parts develop then it is called as shareer i.e. Garbha shareer. Shukrashosheet Garbhashayastha atamprakrut vikarasamudayatma samayogavahi Garbha itichutye | 1

Samayoga means proper union of shukra/shonit/mana/atma & Panchmahabhoots. This includes union of sixteen vikaras and eight prakruti also. This union has happens according to ati-indriyatwatvat, ati-sukshmatvat, all minute structures mix with each other. When poeter is forming soil pot, then he must mix proper proportion of water & soil & other factors then the pot
will formed properly. Soil & water mix each other according to above rule, and then these factors lost their own existence and every smaller unit mix with each other. They mix each other in proper proportion and form a new creation

Soumya shukram artavam aganeyam | 3

Shukra is soumya because of predominance of aap mahabhut & artava is agneya due to predominance of Tej bhuta. These two in their atomic or minute form combine together along with other mahabhutas into one another. Ayurveda told that this union takes place as butter melts near fire. | 4 Sukrabhutee shukrarupe | 5 Shukra prevades the entire body. It manifests in from of semen. Shukra or shonit is mixture of whole body. Beeja-sha chartwyasha janko bhaga | 6 The parts of the ovum or sperm is beejabhaga, we already seen manushya beej. It is nothing but manushaya beej is sperm & ovum. These are janak bhag, Janak means those are responsible for new formation. Manushayabeej hi pratyang beej bhag samudayatmak Each pratyang is part of anga. There are nearly 56 pratyang discribed by Charak & 57 by Sushrut & these pratyang are present in the body. Different parts of these angas called as pratyang. The pratyangbeejbhag means the minute structure of pratyang present in the beej. Beej is collection of the all these minute beej structures of pratyang. Tatra shadang shakha -Shashchatsstro madhya panchamaml Shashtham shiritte | 7

Anga means main divisions of the body & Pratyanga means the various parts of the division, means there are mainly 6 parts or Angaja. These 6parts of the body are head-neck,two upper and two lower extremities and thorax-abdomen. The parts of the angas i.e. thorax abdomen like lungs, heart are called pratyang of the body. Avaya-

vamvayam prati yo avayasthapratyang uchayte | 8 Arnuadatta also mentioned that small parts of the six region are called avayava or pratanaga.

When there is union of male and female gamets after panchabhotic prakriya there is differentiation of organs like hastha, pad, jivya, ghran, karn, nitamb, rang rup, seen on the fetal body then it is called as fetus or garbha-sharir. Afterword this body or shareer is divided into 6 parts called shadang including 4 shakha (two upper &two lower extremities), thorax- abdomen that is Madhya sharir & head- neck means shirbhag | 9

MATERIAL & METHODS

Chrak ,Susarut given various references to elaborate concept of Genetics in ayurveda, both had keenly described about shukra or sperm and shonit or ovum. Also Charak commentator Chakrapani explained nicely regarding genetic changes in beej cause various congenital diseases Samasat beejat shukrashonitat- upatapaptat beejadhwa Upatapapta beejaeeetee uptappta beejajanankabbeejabhat. | 10 Chakrapani analyses deeply on genetic basis says that uptappta beej means affected genes producing seed means smaller parts of gamets affects.

Yasya yasya avayava beeje beejbhag upatapato bavati Tasya tasya angavaya-vasya vikruti jayate nopjayate | 11 The part of body which is damaged in its genitic sources get abnormality, in that specific parts and if there is not damaged in its genetic sources there will not any abnormality. Sadshyameva karanat karyamutpadde | Anyata iti vijatiyata. | 12 Foetus can produced by similar cause as the cause same type of work will be generate.Anyata iti vijatiyata means it cannot be produced by dissim-
ilar cause as desired plant cannot come out
from a dissimilar seed. Tatragarbhashaya
pitraja maturja rasja satavaj satamaja
vyakhyasam. | 13 Though all six factors
matruja, pitruja, satvaj, satmaj, rasaj,
aatmaj are responsible for formation of fe-
tus, the explicit mension of same in the con-
text of satmya & rasa indicate that these two
are not so much essential as other four be-
cause these are latter takes part in formation
of fetus while these factors provide nour-
ishment after it is formed.

Matruja means charactures come from
mother that is from shonit or ovum, pitruja
means charactures come from father that is
from sperm. Satvaj means charactures come
from mana, aatmaj means charactures come
from athama. Satmaj and rasaj means char-
actures come from various habits and nutri-
tion from rasadi dhatu. In this way various
bhavas or features of fetus are derived from
father, mother, ras dhatu, atama, satmya,
wind are transferred to next generation. Fer-
tilised ovum contains above characters and
grows in the uterus of mother. It is covered
by jarayu. Jarayu means amniotic membrane
and some says that placenta. Cakrapani in-
terpret jarayu as amara but this is confused
hence apara means placenta and jarayu
means amniotic membrane. In 1941 Gregg’s observation that congenital cataract
is associated with the infection of pregnant
mother by Rubella revived interest in envi-
ronmental factors. This concludes that con-
genital abnormality has been largely con-
cerned with genetic and also environmental
factor. | 14 Na chetanadaturup
purushchikitsacha abhipret | 15 Pure con-
sciousness is also known as purusha.
Chakrapani interprets antaratma as pure
spirit & garbhatma as shadhatuka purush
or shadhatwatmak purush Pavanendriya

the indriya is used for shukra. Mu manushya
beej beej pratang beej saglmudayatmak
swadshya pratyang samudayrup puru-
shjankama indriyani cha yogadhanani
atmapratibaddhakarmadhinani | 16 The gens
carry the genetic basis of all the body parts
& thus produce the person having similar
body parts. Senses are governed by deed en-
shrined in the soul. Yadandhepatye drush-
tupaghatakamshubh bhawati | tada ka-
kataliyanya yadandhajatoapanyandho
drushyate | 17 On the other hand in case of
sense organ it is only by chance that off-
spring of a blind man comes as blind other-
wise no. According to susarut tej Mahabhoot
cause colour of skin. When tej units
aap then colour will white, when unites with
predominant of pruthvi then color will be
black pruthvi and akash gives blue black
color and predominant of aap and akash
then the color of the fetus will white blue
sometimes color of fetus will be according
to color of food of pregnant women that
means rasaj and satmaj factors are respon-
sible for color. In the book riddle of sex it has
been mentioned that each chromosome con-
tain certain number of genes and they occur
in pairs a set for black eyes, some for fair
skin and number of them for crocked nose. | 18
tena pita yadi kushthashapi bhawati, bee-
jamachapidushta bhaviti kushthadharvadi-
janak tato nikushthanyeva
twagadinyapatntagad beejata saddashani
jayate) | 19

If father is suffering from kushtha vadhi
then this disease is transmitted to the offspring
only if the gens are affected, otherwise if
gens are not affected the disease will not
transmitted to next generation.

DISCUSSION
Ayurveda had given lot of references
regarding gametes and its structures and functions. These gametes again divides into smaller parts called as beejbhag afterword these parts divides into smaller parts called as beejbhagavayava in case of shukra as well as shonit. Male or female gametes divide into nucleus and nucleolus. Nucleus is again divided into chromosomes and genes etc. The head of the sperm has several enzymes including acid phosphate hyaluronidase. Shukra & shonit these are mainly divided as beej, beejbhag, beejbhagavayava. Beej mean sperm or ovum & it’s nucleus. Beejbhag means chromosomes & it’s information. Beejbhagavayava in case of modern aspects called as nucleopeptide or aminoacids or polypeptides. These material is found in nucleus of sperm or ovum. Charak has finely described about beej, beejbhag, beejbhagavayava in charak sharer sthana. Heredity means to carry peculiarities of father or mother to their son or daughter. Thus to transfer genetic material from one generation to next generation is called as heredity. Most important carrying material of this information is shukra (sperm) & shonit (ovum). Shukra & shonit unit together to from ‘Garbha’. Charak say that this shonit & shukra is formed by paramanu & these paramanus are minute, infinite & these are not seen by necked eyes. The paramanusamucchaya of sperm or ovum represented minute structures of specific organ the body. The body components according to division in smallest unit are due to overabundance or atibahhtwat (parmanubhedan) over minuteness (atishukshmatwat) & transcending perception (ati-indraiyatwat). The causative agent in conjunction & disjunction of cells is due to vayu & also nature of activities. (karmaswabha).

We are able to observe gross things of the body by nacked eyes (charmachakshu) but we can see same parts of the body by dhanchakhu (dnyanchkshu) or tapchakshu . In ancient times there are not microscopic instruments to see micro things. Hence these things are concluding according to their knowledge or thinking so keenly on it. They are seeing these mater by divine vision (divyachakshu), philosophical eye, scientific eye. Gregg’s observed that congenital cata
tact is associated with the infection of pregnant mother by Rubella. This concludes that congenital abnormality has been largely concerned with genetic and also environmental factor. Ayurveda explains that these genetic abnormalities occur due to satmaj or rasaja factors. Hemophilia, Klinfelter syndrome, Turner syndrome these diseases cause due to sex linked chromosomal abnormality. Ayurvedic scholars mentioned other six factors which affects the process of fertilization. These factors are matrija, pitruja, satvaja, rasaja, satmaja & atmaja. Matrija means qualities coming from mother. Pitruja means qualities coming from father. Satvaja means qualities affect by mana. Rasaja & satmaja means qualities coming from aharras or from food. Atmaja bhavas comes from atma. These all factor take part in case of fertilization or in Garbha-nirman process. In ayurveda action of various components like living standard, dosh, temperature, ahar & other factor also effect on the Garbha, also age, sex, caste & family atmosphere effects on the Garbha sharer.

In this way considering all above points human should think for supraja. Ayurvedic consultants should aware of all these above points & he should convince various aspects of ayurveda for birth of good child. Psychologically, physiology & anatomically healthy child is future of our nation.

CONCLUSION

1. Panchamahabhoota, deha prakruti, dosh prakruti, dosh prabhalya or vikar are carried from one generation to next generation. when shukra (sperma) & shonita
1. When it develops fully then it is called as Garbhashareer or fetus, thus the embryo, fetus is formed by the union of the Beej beejbhag and beejbhagayavayava.

3. Panchbhautick material is also important for genetic transfer of genetic information. For color and also structure of new embryo panchbhautic factors are responsible.

4. According to Ayurveda shukra (Pitaruja factor) and Shonita (Matruja factor) are responsible for formation of garbha that is sperm and ovum forms fertilized ovum.

5. These seeds are subdivided into beejbhag, beejbhagayavayava. Similarly sperm and ovum divided into nucleus and nucleolus. Nucleus is subdivided into gens, chromosomes nucleopeptides, polypeptides and are responsible for genetic transfer as Ayurvedokta beejbhag, beejbhagayavayava.

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