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**Published paper's title : Concept of
Genetics in Ayurveda**

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Research Paper

CONCEPT OF GENETICS IN AYURVEDA

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Declaration

The Declaration of the authors for publication of Research Paper in Asian Journal of Modern and Ayurvedic Medical Science (ISSN 2279-0772) Pramod Kumar Singh¹, N.S.Tripathi² and P.S.Byadgi³, the authors of the research paper entitled concept of genetics in ayurveda declare that , We take the responsibility of the content and material of our paper as We ourself have written it and also have read the manuscript of our paper carefully. Also, We hereby give our consent to publish our paper in ajmams , This research paper is our original work and no part of it or it's similar version is published or has been sent for publication anywhere else.We authorise the Editorial Board of the Journal to modify and edit the manuscript. We also give our consent to the publisher of ajmams to own the copyright of our research paper.

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ABSTRACT: Ayurveda is science of life from thousands of years. Ayurvedic acharya's has great knowledge about genetics. Hereditary and congenital types of diseases are classified by Sushruta. Ayurveda mentioned different diseases like sthaulya (obesity), klaibya (impotence), prameha (diabetes) etc. which is due to defect in genetic component of a person. Prakriti (different types of personality) is also mentioned as concept of genetics. Present article through some glimpses on various concepts of genetics in Ayurveda.

KEY WORDS: Prakriti, Shukra, Shonita, Beejabhaga, Beejabhagavayava, Genetics, Personality

INTRODUCTION

Ayurveda has glorious history since ancient era. In Ayurveda different concepts of genetics are described. Prakriti is considered as qualitative and quantitative unchangeable doshika predominance from birth to death ^[1]. Prakriti plays important role during prognosis and treatment of diseases. Dominant doshas during union of shukra and shonita determines prakriti of an individual ^[2]. Hereditary diseases are diseases which are caused by abnormal sperm and ovum.

Hereditary diseases are classified as maternal and paternal ^[3].

DETERMINATION OF PRAKRITI

Prakriti of an individual is not only dependent on shukra and shonita but also dependent on the kala, dietetic regimen, behavior of mother, nature of garbhasaya and on mahabhutas ^[4, 5, &6]. It is determined by (a) sperms and ovum; (b) season and condition of the uterus; (c) food and regimens of the mother; and (d) nature of mahabhutas comprising the foetus. The foetus gets afflicted with



one or more of the two doshas, which are dominantly associated with the above mentioned factors. Doshas dominating the sperms and ovum during the time of conception and also those inhabiting the uterus at that time determine the prakriti of the individual. Food and regimens of the mother, which aggravates doshas at that time, also determine the physical constitution. The doshas that ultimately emerge as dominant factors actually determine the prakriti. Season also indirectly serve as important factors for the determination of prakriti in as much as they also aggravate doshas in the sperms and ovum. According to some other texts of medicine, prakriti of an individual is determined on the basis of the condition of the sperms and ovum⁷.

RECENT STUDIES ON PRAKRITI

Study showed correlations between CYP2C19 genotypes and prakriti with fast and slow metabolism being one of the major distinguishing and differentiating characteristics and suggested significant impact on phenotype-genotype correlation, drug discovery, pharmacogenomics and personalized medicine^[8]. According to study individuals from the three most contrasting constitutional types show striking differences with respect to biochemical and hematological parameters and at genome wide expression levels^[9]. Another study showed the relationship between HLA alleles and prakriti typing^[10].

OTHER CONCEPTS OF GENETICS

Charaka has given the concept of matrija (maternal) and pitrija (paternal) bhavas and mentioned that embryo is produced from mother father self, suitability, nutrition and psyche and different organs develops due to dominance of these bhavas^[11]. Concept of beejabhaga is also mentioned in

Ayurveda^[12]. In Ayurveda it is also mentioned that congenital case of prameha is incurable because of genetic defect. Whatever diseases are familial they are said as incurable^[13]. Yonivyapd is also may be due to beeja dosha^[14]. Charaka has explained how factors cause morbidity in foetus as he mentioned that when a woman uses aggravating factors, the doshas get vitiated and in course of spreading reach the ovum and uterus but do not affect them entirely. Women conceive but foetus gets damaged in one or more maternally derived organs, that part is affected with morbidity in gene. When in its ovum gene (beejabhaga) concerned with uterus is damaged, the progeny become sterile; when a part of this gene (beejabhagavayava) is affected a putipraja (dead foetus) child is born. When along with latter abnormality a portion of genes concerning the female character relating to body is also affected, the progeny will be predominantly female shaped but not female actually named as varta. These are the morbidities due to affection of the female genes. When the genetic part of the sperm is affected, the child will be sterile. When fraction of genetic part affected, the offspring will be predominantly male shaped but not male and named as trinaputrika^[15]. Eight types of genetic sexual disorder is described in Charaka Samhita^[16]. Different types of defects in shukra (sperm) and shonita (ovum) is mentioned in Ayurveda^[17]. Concept about formation of twins was mentioned by Sushruta^[18]. It is also mentioned that the man of parents having highly deficiency fertilizing factors is known as aasekya^[19]. Different types of defective offspring are described in ayurveda^[20]. Vagbhata has mentioned the dominant character of shukra and shonita are responsible for determination of sex^[21]. In Astanga



Sangraha it is mentioned that part of seed (beeja bhaga) is responsible for formation of organ [22].

DISEASES

Sushruta has mentioned seven types of diseases e.g. hereditary, congenital, traumatic, ecological, humoral, supernatural, natural [23]. Suchimukhi yonivyapat is due to maternal defects [24]. Due to genetic defect in female foetus vayu destroys the ovary, the women has aversion to males and is devoid of breasts. This is known as sandi and is incurable [25]. Klaibya (impotency) is of four types is described due to genetic defects [26]. Obesity is also described due to genetic defect [27]. Morbidity in shukra and shonita manifests diseases like kustha (skin diseases including leprosy), arsha (hemorrhoids), prameha (urological diseases including diabetes mellitus) and yakshma (Tuberculosis) [7].

CONCLUSION

Ayurveda described about genetic concept while classifying the diseases in various seven groups. It has been nomenclature as adibala pravritta or sahaja vyadhi. There are references available in respect to prameha as kulaja vikara. Beeja(chromosome), beejabhaga(genes) and beejabhagavayava(fraction of part of chromosome) were described while explaining the morbidity of sperm and ovum. Ayurveda also says that hereditary diseases are incurable. To name a few diseases like prameha, arsha, yakshma etc manifest due to morbidity in sperm and ovum.

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