



RELEVANCE OF PATHYA APATHYA IN PRECONCEPTIONAL CARE

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ABSTRACT Ayurveda prescribes specific diet pattern in the healthy as well as disease condition known as pathya ahara .pathya not only advocates intake of wholesome food but also it directs to follow certain regimen to fasten the process of recovery from the disease state. Pathya is one of the three important factor to be considered in the treatment of a disease pathyahara nourishes all the dhatus and srotas even sukrahava and arthavavaha srotas leading to complete nutrition to both. Sterility may be defined as failure to deliver a viable child rather than failure to conceive, so many factors are responsible for the cause. According to Charaka Samhita while explaining sapraja vandy aacharya mentioned aharavihara dosha as one of the cause for vandyatvam .aharapaka rasa also plays an important role in the formation of beejas as well as its implantation and nourishment. Hence apathyahara may lead to both sukra as well as arthava dushti which may lead to sterility . In garbhadhana it is mentioned that male should take ksheram , ghritam etc certain researches show that it contain zinc, selenium, vitamins , omega3, omega 9 fatty acids which helps in the normal spermatogenesis as well as sperm motility and improves fertility .female should take matsya, tilam , dadhi etc also contains folic acid, zinc ,fatty acids which supports the normal reproductive function in both males and females. As fertility rate is falling faster, the relevance of pathya apathyahara plays a major role in the present scenario.

KEYWORDS : pathya apathyahara, vandyatvam, fertility

INTRODUCTION

The word pathya originate from the root word 'pathya' which literally means channels. According to sabdakalpadrumam it is said that pathya is beneficial to the patients apathyahara harms them.

Ayurveda prescribes specific diet pattern in the healthy as well as disease condition known as pathya ahara .pathya not only advocates intake of wholesome food but also it directs to follow certain regimen to fasten the process of recovery from the disease state

In yogaratnakaram it is said that for the treatment of a disease , pathya is one the three important factors to be considered and the other being etiology of the disease and the drugs used in the treatment.

According to Bhela samhitha it is explained that pathya ahara nourishes all the dhatus and srotas even sukrahava and arthavavaha srotas leading to complete nourishment of the sarira while the apathyahara harms the sarira .

Sterility may be defined as the failure to deliver a viable child rather than failure to conceive. Acharya charaka has mentioned so many factors are responsible for the cause like yoni pradosham, sukra arthava doshas, manasthapam , ahara vihara doshas etc are mentioned as causes.

IMPORANCE OF PATHYA AHARA AND VIHARA

pathya ahara may lead to the proper formation of ahararasa , which nourishes the rest of the dhatus , while apathyahara may lead to the rasa dusthi which inturn affects sukra as well as arthava and ultimately result in the derangement of fertility. Among the causes of male and female infertility nutritional and life style factors play a major role.

PATHYA AHARAAND VIHARAIN MALE

In the context of garbhadana acharya charaka mentioned that shodhana karma's like vamana, virechana etc should be done and the male should take ksheera , ghrita etc and in the context vajeekarana also kshera and ghrita plays a major role (charaka samhita sa 8/4). In sargandhara samhita also in the context of sukrala (semenogogous) drugs mentions masha along with ksheera and satavari.

It is mentioned that masha and dugdha has both sukra janaka and pravarthaka properties

In astanga hridaya in the context of vajeekarana Mamsarasa is also

mentioned as pathya for males.

ANALYSIS OF PATHYAAHARAIN MALES

Milk contain essential nutrients like calcium, vitamin D, vitamin B12, traces of zinc , selenium , omega -3-fattyacids etc . Researches shows that vitamin B12 may positively affect male fertility by promoting spermatogenesis and androgen production .B12 deficiency may also cause erectile dysfunction. Vitamin B12 involves in RNA &DNA synthesis and promotes healthy growth of seminiferous tubule

Ghrita also contains omega -3, and omega-9 essential fatty acids along with vitamin A,D, E , K and antioxidants . Sali rice is also mentioned which contains complex carbohydrate which boost fertility unlike the refined white rice.

Fig_1

Vit B12	Involves in RNA and DNA synthesis supports androgen production Promotes healthy growth of seminal tubules
Calcium	Initiates sperm motility
Vit C	Prevents clumping of sperms, protect sperm from DNA damage , reduces the chance of chromosomal damage.
Zinc	essential trace element for spetmatogenesis ,Involves in ribonuclease activity. It increases the expression of the antioxidant enzyme superoxide dismutase (SOD) and the anti-apoptotic protein Bcl-2, which prevents sperm cell death enhance sperm motility Decrease antisperm antibody
Vit E	Assure the accurate formation of middle piece and flagella , prevents sperm cell membrane from oxidative damage.
Selenium	Improves mitochondrial action and has positive effects on leydig cells and influence testosterone production.
Vitamin A	Regulating spermatogenesis particularly spermatogonia differentiation and also spermatid adhesion regulations .
Omega -3-fattyacid	Results in higher anti-oxidant activity in human seminal fluid & enhance sperm count , sperm motility & sperm morphology.

APATHYAAHARA & VIHARA IN MALES

Certain apathya aharas like alcohol intake may lead to decreased level of testosterone Heavy alcohol drinking, however, may decrease the production of testosterone and increase the rate at which testosterone is cleared from the bloodstream.

Muscle-building dietary supplements may contain anabolic steroid which adversely affects male fertility by interfering the normal sperm production.

In a study entitled Dietary Fat and semen quality among men attending a fertility clinic, scientists noted that the higher the level of fat intake, the lower the total sperm count.

The pesticides and herbicides sprayed on foods have been shown to negatively impact fertility. Studies have shown that these chemicals affect both male fertility (lower sperm count) as well as female fertility, in males it affects the sperm motility and reduces sperm count.

PATHYAAHARA AND VIHARA IN FEMALE

In female after shodhana acharya mentioned to take tailam, masham, pitta varthaka aharas like matsyam, kulatham, dadhi, tilam, masham etc

Matsyam contains omega -3-fattyacids, omega -9 fattyacid, vitamin D, vitamin B2, iodine, magnesium, potassium, folic acid. it also contains coQ10 which is a potent antioxidant that prevent cell from free radical damage Kulatha is pittarakthakrit. Dadhi is a good source of calcium, zinc, iodine, selenium potassium, magnesium, folic acid, vitamin B2, B1, vitamin A, C etc

A minimum of one hour exercise three times per week improved rates of implantation and pregnancy and reduced the risk of miscarriage in 436 women undergoing ICSI [1]. Low to moderate exercise was also associated with increased implantation and live birth rates in 131 women undergoing ART.

ANALYSIS OF PATHYAAHARA IN FEMALES

Omega -3-fattyacid	Regulate hormones Increases blood supply to the uterus
Iodine	Deficiency may cause menstrual irregularities
Calcium	Helps the normal reproductive functions
Zinc	Involves in ribonuclease activity
Iron	Important role in normal red blood cell function
Selenium	Anti-oxidant Improves mitochondrial action
Vitamin c	Improves the fertility in women with luteal phase defect.
Folic acid	Anti oxidant and protect DNA from free radical damage. Reduces the risk of neural tube defects
Calcium & magnesium	reduce the risk of pregnancy induced hypertensive disorders;

antioxidant that prevent cell from free radical damage Kulatha is pittarakthakrit. Dadhi is a good source of calcium, zinc, iodine, selenium potassium, magnesium, folic acid, vitamin B2, B1, vitamin A, C etc

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ANALYSIS OF PATHYAAHARA IN FEMALES

Fig 2

APATHYAAHARA & VIHARA IN FEMALES

junk food one of the main reasons for rising obesity numbers. Excessive fat stores may inhibit conception by affecting ovulation and leads to PCOS and results in insulin resistance, excess Androgens and overproduction of leptin. PCOS effects ovulation, implantation of the ovum as well as increasing the rate of miscarriage Maternal overweight and obesity before conception increase the risk of maternal complications during pregnancy such as gestational hypertension,

gestational diabetes, Cesarean delivery, macrosomia, as well as birth defects such as NTDs, other neurological abnormalities, congenital heart disease, intestinal malformations and multiple congenital anomalies Caffeine products especially coffee can lead to infertility among women. Consuming more than 300 gms of coffee per day can increase the chances of infertility The pesticides and herbicides sprayed on foods have been shown to negatively impact fertility In women pesticides affect fertility by disrupting HPO axis by affecting the Hormone synthesis, release & storage and affects thyroid function.

Plastic water bottles contains xenohormones which mimic estrogen in the body and in turn leads hormonal imbalance and infertility The globalized high-energy and low-nutrient density dietary pat-tern and habits like snacking, breakfast skipping, fast foods, soft,inks and convenience foods are nutritionally unbalanced, and intake of micronutrients in general fails to meet recommended daily allowance.

ROLE OF MIND IN FERTILITY

Ayurveda stresses the importance of mind (manas) as an important factor for conception. It is well evident from the classical references like charaka samhita, ashtanga hridaya etc. In charaka samhitha it is emphasized that saumanasyam (pleasant mind) is sresta (best) for garbhadharanam. In ashtanga hridaya while mentioning the factors essential for a healthy progeny the role of 'hriddi' (mind) is explained.

DISCUSSION AND CONCLUSION

Pathya aharas and viharas which are mentioned in our classics helps in the normal reproductive function in both males and females reproductive system along with maintaining positive mental health of partners. In Pre conceptional maternal nutrition plays a key role in reproductive health as well as fetal development health. There deficiency may cause several malformations and pregnancy related disorders (congenital anomalies, fetal loss, miscarriage, insufficient fetal growth, premature birth and pre-eclampsia) This affects both fertility and the early stages of gestation. The women with the highest fertility diet scores ate less [trans fats](#) and sugar from carbohydrates, consumed more protein from vegetables than from animals, ate more fiber and iron, took more multivitamins, had a lower body mass index (BMI), exercised for longer periods of time each day, and, surprisingly, consumed more high-fat dairy products and less low-fat dairy products.

An animal study shows that deficiency of vitamin E cause infertility in rats.

Researchers have found a low serum zinc concentration is correlated with low sperm count (oligospermia), low sperm density (azoospermic), low motility (asthenozoospermia), reduced viability and increased in pathological sperm morphology and leads to infertility

Selenium is a principal antioxidant in the body in infertile men with oligospermia or azoospermia compared to fertile men, suggesting a disturbed selenium balance in infertile men. in a clinical study serum selenium status correlated with testosterone levels. The study suggest that selenium has a positive effect on Leydig cells, influencing the secretion of testosterone. Zinc and selenium have a large impact on the morphological integrity of sperm, especially the midpiece formation

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