



COLONIAL MINDSET AN OBSTACLE TO FERTILITY

Dr. Meghashree.B¹ DR. RAMADEVI G² DR. SHARON³

¹PG scholar, ²HOD and professor, Department of Prasoothi Tantra and Stree Roga, SDM college of Ayurveda

³Assistant professor, Department of Prasoothi Tantra and Stree Roga, SDM college of Ayurveda Udupi

ABSTRACT

Colonial mindset is a leading cause for infertility and teratogenicity, where people take indigenous things more inferior than western, eventually adapting the western culture. *Dushivisha* is cumulative poison which retains and accumulate within the tissue due to prolonged exposure. It might act on the endocrine system, adversely affecting the hormonal secretion.

Here an attempt is made to prove that, colonial mindset i.e., chronic exposure to cosmetics contains Endocrine Disrupting Chemicals being one of the major causes for infertility in female, Alcohol is a leading cause for teratogenicity in early pregnancy, lifestyle modifications lead to various gynecological disorders. Studies have proven that 20-30% of women with prolonged exposure to cosmetics ends with alteration in estrogenic pathway and chronic alcoholism even during early pregnancy leads to miscarriage and teratogenicity in foetus. Hence awareness against prolonged exposure to cosmetics and teratogenic agents are to be directed to build up a healthy India.

KEY WORDS: Colonial mindset, cosmetics, infertility, teratogenicity.

INTRODUCTION

Colonial mentality refers to the inferiority complex that was harbored in the minds of Indian intellectuals and public due to the long colonial rule and modernization of society. People think foreign culture as being superior while indigenous commodities are considered to be inferior. Eg: Adaptation of western system of medicine, education, ideas, principle, cosmetics, western food styles, lifestyle, pesticides due to which the present generation face many problems like infertility, teratogenicity in their progeny, where in which 10-20 decades ago the scenarios were not the same. The incidences of adverse reactions were merely observed. But now due to the colonial mind set people tend to follow the western culture in an updated version as a result cases of infertility are increasing both in males and females. Ayurveda even though it is an oldest medical science the root cause of infertility was known in its ages back. It is only due to the negligence of the new generation along with the over modernization, both male and females are equally facing the problem of infertility. Usage of cosmetics, intake of western or junk food, consumption of alcohol over a longer period can act as slow poison or can be taken as example for *dushi visha*¹. The present generation is very much exposed to the cosmetics, which is now acting as a slow poison. 'Cosmetics enhance beauty' is the reason for us to use them. But we hardly think of their adverse reactions.

DUSHI VISHA

Dushi visha is a poison which has become old, which is inadequately neutralised by the antidotes, that which by its nature itself is not endowed well, bestowing all the properties of *visha*. Any poison, may it be *sthavara, jangama* or *krithrima*, if it's not been eliminated from the body completely even after following specific treatment, it may convert into a *dushi visha*². prolonged exposure of lesser virulent Poison may also end up as *dushi visha*.

Dushi visha vitiates the blood and causes many symptoms like

Unmad, avipaka, arochaka, mandala kushta, kota, moha, dhathu kshaya, dakodhara, chardhi, athisara, vishamajwara, unmada, daha, moha,

shukra kshaya. Acharya *sushruta* has mainly talked about the *shukrakshaya* that is vitiation of *shukra dhatu*³

UPADRAVA OF DUSHIVISHA

The *upadrava* produced by *dushi visha* include fever, burning sensation, hiccups, flatulence, depletion of semen, fainting, diarrhoea, heart diseases, abdominal enlargement, insanity and tremors⁴. In current scenario, of all infertility cases about 40-50% is contributed by male factor like depletion of semen and sperm abnormality

CAUSES OF FEMALE INFERTILITY⁵

1. OVULATION DISORDERS CAUSES

- Aging
- Diminished ovarian reserve
- Premature ovarian failure
- Endocrine disorders like PCOS

2. TUBAL CAUSES

- Pelvic inflammatory disease
- Tubal surgery
- Previous ectopic pregnancy
- Salpingectomy

3. UTERINE /CERVICAL CAUSES

- Congenital uterine anomaly
- Fibroids
- Endometriosis
- Poor cervical mucus quantity/quality
- Infection

INFERTILITY AND TERATOGENICITY ACCORDING TO AYURVEDA

Ayurveda explains if there is any abnormality in *ruthu*, *kshetra*, *ambu*, *beeja*⁶ there may be infertility in female which may also end up in teratogenicity in progeny. Acharyas also mentioned unwholesome *ahara vihara* as one among the causative agents for infertility.

In charaka samhitha athulya gothriyam shareeram 2nd chapter Vandhya⁷ has been described failure to achieve conception. While assessing Nidanas for Vandhyatva, the important factors to be considered are Garbhasamagris like rutu, Ksetras, Ambu, Bijas, Hridaya or Psychology, Vayu and Sadbhavas; Abnormality in one of these can cause infertility. Abnormality of Yoni, psychology, sukra, Asrk, diet and mode of life, coitus at improper time and loss of Bala have been included, in the causes of delay in achieving conception by an otherwise fertile or Sapraja

woman by Caraka. A woman who is inflicted with vata vikaras may find hinderance in the path of conception. Normalcy of psychology has given highest importance for achieving conception as in – “saumansyam garbhakaaranam”⁸

1. **Abnormalities of rutu** (Season or fertile period): In abnormalities of *Ritu*, coitus at the end of *Ritukala* or Other than the *Rtukala*. It is told that the conception is not possible, because the acceptance of Bija does not occur.

2. **Abnormalities of Ksetras** – While discussing abnormalities of *Ksetras*, Acharya Hareeta says that, constriction of uterus and vulva due to the coitus done with the girl before menarche also causes infertility (Ha. Sam.3rd, 5 Th _ 48/1 ,2).

Here, all the anatomical structures pertaining to the reproductive system of a women can be taken into consideration. Infection caused due to pathogens like TORCH in pregnancy may lead to miscarriage, stillbirth, delayed foetal growth and maturation i.e intrauterine growth retardation congenital/developmental anomalies, exposure to pesticides like endosulfan can cause gross foetal anomaly, decrease spermatogenesis in off spring

3.**Abnormalities of Ambu** - Bala Kshaya is described under the cause of infertility⁹ (Cha.sa.2/7). increased use of katu,lavana rasa in the diet may cause decrease in the jaliya

dathu leading to oligohydramnios's also. pregnant women when exposed to environmental pollution like lead toxicity may cause teratogenicity in the developing embryo resulting in miscarriage. In

abnormalities of *Ambu*, *Harita* mentioned *Dhatu Kshaya* (HA: Sam.48/1) is one of the causes for infertility. Excessive consumption of *katu ahara*¹⁰ or *vathavardhaka ahara vihara* can cause vitiation of *doshas* leading to *vandhyathwa* or hormonal imbalance

4. Abnormalities of Beeja

Charaka directly quotes that *Vandhyatva* is the result of *Pradushta Garbhasaya BiJa Bhaga* of *sonita* and *sukrashaya Bija Bhaga* of *sukra* of females and males respectively¹¹ (Cha. Sa. 4/30,31). so when the *pradushta sukra* combines with the healthy *beeja /pradushta bija* or vice versa may result in a congenital anomaly depending upon which part of *bija* or *sukra* is affected.

Due to abnormality in *bija* (ovum and sperm), *athma karma* (deeds of previous life), *ashaya* (uterus), *kala* (time factor or abnormality of *ruthukala*) and *deictics* along with mode of life of mother, the vitiated *doshas* produces abnormality in the foetus, affecting its appearance, complexion, *indriyas* and *lifespan*. Abnormality in *shukra* and *arthava* produced by the vitiation of *dosha* especially *vata* located in *sukra* are said to produce congenital anomaly or *garbhangavikara*¹². Charaka says that pregnant women must avoid excessive use of pungent food, excessive exercise, etc. She must avoid *garbhopagatha kara bhava*¹³, like excessive heavy, hot and pungent substance, strenuous activity, intoxicant substance like wine, alcohol, ride over vehicle, excessive meat, and avoid other harmful substance

ENDOCRINE DISRUPTING CHEMICALS¹⁴

The endocrine system is a network of glands and organs that produce, store, and secrete hormones. When functioning normally, the endocrine system works with other systems to regulate your body's healthy development and function throughout life. Endocrine-disrupting chemicals (EDCs) are substances in the environment (air, soil, or water supply), food sources, personal care products, and manufactured products that interfere with the normal function of your body's endocrine system. Since EDCs come from many different sources, people are exposed in several ways, including the air we breathe, the food we eat, and the water

we drink. EDCs also can enter the body through the skin through the cosmetic products which we use every day like nail polish, mascara, sunscreen lotion etc.

These Synthetically produced chemicals (EDCs) mimic hormones like oestrogen and alter signalling path way. Phthalates, parabens, triclosan reduces oestradiol level, antral follicle count, oocyte quality, embryo quality, rate of clinical pregnancy and live birth

Examples for endocrine disrupting chemicals in cosmetics -foundations contain heavy metals, blush contains ethanolamine compounds, nail polish contains toluene, sunscreen contains octinoxate, shampoo contains 1,4dioxane, mascara contains nitrosamines, lipstick contains lead, fragrance /perfumes contain butylated hydroxy anisole, body lotion contains parabens, deodorant contain triclosan

USES	PRODUCTS	CONTAINS
EYES	EYEBROW PENCIL EYELINER MACARA EYE-MAKE UP	BISPHENOLS
SKIN CARE	BLUSH POWDER SKIN TONER LOTIONS	DIAZOLIDINYL UREA TALC BHA
LIPS	LIPSTICK LIPGLOSS LIP LINER	PHTHALATE LEAD TRICLOSAM
HYGIENE	SOAP SHAMPOO BATH SALTS DEODRANTS	PARABENS DIETHYLE PHT butylated HYDROXY ANISOLE HALATE
HAIR	HAIR DYE	PARABENS

	COLOURED SHAMPOO HAIR SPRAY CONDITIONER HAIR LIGHTENER	
NAILS	BASE COAT NAIL POLISH CUTICLE SOFTENER NAIL POLISH REMOVER	FORMALDEHYDE FORMALIN TOLUENE DIBUTYL PHTHALATE
TANNING/UV PROTECTION	OIL CREAM SUNSCREEN	DIISONONYL PHTHALATE

These cosmetics over a long run act as *dushi visha*. Excessive use of these cosmetics for a prolonged period may interrupt the hypothalamus - pituitary-ovarian axes¹⁵ and thus may bring about the hormonal imbalance and produces syndromes like PCOS leading to infertility. There are many such examples to explain infertility caused due to colonial mind set or over modernization. EDCs can disrupt many different hormones, which is why they have been linked to numerous adverse human health outcomes including alterations in sperm quality and fertility, abnormalities in sex organs, endometriosis, early puberty and other metabolic life style disorders like obesity.

TERATOGENICITY CAUSED DUE TO COLONIAL MINDSET

Due to colonialisation, both men and women are exposed to teratogenic agents¹⁶ for a long period which will bring about certain changes in the chromosomes of the sperm and ovum and produces anomaly in the progeny. teratogens are drugs or other substance which are capable of interfering with the development of a foetus causing birth defects. alcohol

and cocaine are the best example which the present generation is prone to. this acts like a slow poison and produces anomaly in the foetus. chronic exposure of a women before pregnancy or during the 1st trimester of pregnancy can produce a syndrome in the foetus called foetal alcohol syndrome¹⁷ presenting with symptoms like flat nose, mental retardation etc

CONCLUSION

Present generation is going through a tough phase. Late night works, early meetings, hectic social life, work pressure, etc are some of the factors which add up to the everyday stress. But the main cause of many problems like infertility, PCOD is failure to maintain a regular schedule. Our forefathers never had to worry about the stress since they maintained a disciplined *dinacharya* which they followed sincerely. There was no much use of cosmetics, or no much western life style hence the life was going smoothly without any complication. This not only helps to keep the doshas in balance, controls the body's biological cycle, promotes discipline and happiness but also helps to reduce stress. Most of us follow everything daily but the manner we follow it makes a difference. Starting a day with scowl makes the day miserable. In the quest to complete the assigned work within the proposed time limit, people fails to give proper attention towards one's health, both physical and mental. Many a time missing meals, not responding to nature calls that is, *vega dharana*, sedentary life style, going to bed soon after having food, night shift insomnia all these things are leading cause for life style disorders which our generation commit without their knowledge. Thus *dinacharya* has to be followed by every person irrespective of their body type, age, gender, or health condition. A daily routine is essential for bringing about a dramatic transformation in the body, mind and consciousness. Following *dinacharya* will help in digestion, absorption, assimilation as well as building self-esteem, happiness and longevity. By following *dinacharya* we not only can gain good health but also can attain *dharma*, *artha*, *moksha*. when *dinacharya* followed regularly, it contributes to life of optimum health via regularity, detoxification and nutrition.

Dinacharya is formed by two words -*dina* which means day and *charya* means activity. By incorporating *dinacharya*, basic self-care practices in to our life, we will be armed with silks we need to foster balance, joy, and overall long-term health.

Colonial mindset is a major issue faced in this present generation. It's been more than 75 years that we have got independence, but still we are following the culture and tradition which are harboured to us by the British rule may be in the form of western cloths, daily used cosmetics, industrialization, food style etc. Without controlling the mindset of the young generation, we cannot come out of the out beak of life style disorders like PCOD etc. Hence strict measure must be taken to educate the young generation about Indian tradition, make them capable to accept the good .it is always better to implement the idea of educating Children in school about the Indian system of medicine, *dinaccharya*, *ruthucharya*. if done so we may be able to prevent the future generation from being led towards the lifestyle disorders.

REFERENCES

- 1.Sushrutha samhitha - Kalpa Sthana 2/24 page -32 (comentatory) 2017 , chaukamba publication varnacy, hindi commentary , Dr kaviraja ambhikadutha shastri
- 2.Sushrutha samhitha - Kalpa Sthana 2/24 page -32 2017 chaukamba -publication
Dr kaviraja ambhikadutha shastri
3. Sushrutha samhitha - Kalpa Sthana 2/30-32 page -33 2017 , chaukamba publication varnacy, hindi commentary, Dr kaviraja ambhikadutha shastri
- 4.Sushrutha samhitha - Kalpa Sthana 2/43-44 page -38

- 2017 , chaukamba publication varnacy,
Hindi commentator, Dr kaviraja
ambhikadutha shastri
5. Williams gynacology - page no-389
- 2008 3rd edition Hoffman,
Schorge, bradshaw Halvorson
Schaffer, corton
- 6,12. Charaka samhitha - Shareera sthana 2/29-30, page
No-852,2014 edition,charaka
Hindi commendatory,
dr Brahmananadh tripati
7. Charaka samhitha - Shareera sthana 2/5, page no-
839
2014 edition, Charaka Chandrika -Hindi
commendatory, Dr Brahmanandh tripat
8. Haritha samhitha - 1st chapter /28-30
2016 edition, chaukambha
Vishwa Bharathi, varnasi
9. Charaka Samhitha - Shareera sthana 2/7 page no-840
2014 edition, Charaka
Chandrika -Hindi commendatory
Dr Brahmanandh tripati
10. Charaka samhitha - Shareera sthana 2/8 page no-851
2014 edition, charaka Chandrika
11. Charaka samhitha - Shareera sthana 4/8 page no-874
2014 edition, Charaka-
Chandrika -Hindi commendatory,

Dr Brahmanandh tripati

12.Charaka samhitha - Shareera sthana 2/8 page no-851
2014 edition, charaka Chandrika

Hindi commendatory,

Dr Brahmanandh tripati

13.Charaka samhitha - Shareera sthana 4/18 page no-885
2014 edition, charaka Chandrika

Hindi commendatory,

Dr Brahmanandh tripati

14. Williams gynacology - page no-430
2008 3rd edition Hoffman,
Schorge ,bradshaw
Halvorson, Schaffer, Corton

15. Williams gynacology - page no-342
2008 3rd edition hoffman,
Schorge, bradshaw, Halvorson
Schaffer, Corton

16. Williams obstretrics - page no-313
23rd edition Cunningham,
Leveno,Bloom ,Dashe
Hoffman, Casey, Sponge

17.Williams obstretrics - page no-317
23rd edition Cunningham,
Leveno, Bloom, Dashe
Hoffman, Casey, Sponge

□ **Kuiper GG, Lemmen JG, Carlsson B, Corton JC, Safe SH, van der Saag PT, van der Burg B, Gustafsson JA** 1998 Interaction of

estrogenic chemicals and phytoestrogens with estrogen receptor β . *Endocrinology* 139:4252–4263 [[PubMed](#)] [[Google Scholar](#)]

□ Dickerson **SM**, Gore **AC** 2007 Estrogenic environmental endocrine-disrupting chemical effects on reproductive neuroendocrine function and dysfunction across the life cycle. *Rev Endocr Metab Disord* 8:143–159 [[PubMed](#)] [[Google Scholar](#)]

- Hauser R, Sokol R: Science linking environmental contaminant exposures with fertility and reproductive health impacts in the adult male .*Fertile sterile* 89(2 suppl):e59,2008

