



Prevention of Infertility

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Abstract

Infertility is a unique medical condition because it involves a couple, rather than a single individual. It is defined as inability of a couple to conceive after 12 months of regular intercourse without use of any contraceptives [1]. The term Subfertility is used instead of infertility to describe this failure to conceive unless the couple has been proven to be sterile. Infertility affects approximately 10 to 15% of reproductive aged couples, in USA it ranges from 12- 18% [2].

Keywords: Infertility; contraceptives; Subfertility

Although the infertility services has increased through out the world but the prevalence remained the same. Infertility is a tremendous psychological, social, cultural and economic burden. Women become outcaste if she is responsible for infertility. The treatment of infertility is very expensive sometimes it is beyond the capacity of common people. So prevention is better than treatment. It is worth to mention the quote of Benjamin Franklin "An ounce of prevention is worth a pound of cure". All women and men must know how to avoid the risk factors that jeopardize the future fertility. Women and male should be motivated to listen to advice concerning the impact of life style factors on fertility. Because modification of some of general factors appear improve fertility potential, although it has not been evaluated randomized trials [3].

The causes of infertility are many and some of them are unknown. The causes are mentioned below [4].

Male Factors (26%) = Hypogonadism, post testicular defects, tubular dysfunction. Female factors are ovulatory dysfunction (21%), Tubal damage (14%), Endometriosis (6%), Coital problem (6%), Cervical Factors (3%), and Unexplained (28%).

The decline of fertility starts at early thirties and accelerates in the late thirties and forties, as oocytes get older. Women in their late thirties are approximately 40% less fertile than women at there 20s. Male fertility also decreases with increasing age or advanced age. Exact age is difficult to say but cutoff point of advanced age is > 40 [9]. Even the success of ART (11- 39%) depends on women's age more the age less the success. The miscarriage and

chromosomal abnormality occurs more than double between the age 20 and 40 years. So women should get pregnancy before the age 35. Similarly male fertility peaks at about 35 years of age and declines sharply after 45 years [5].

Obesity or underweight both are related to infertility. Optimum BMI (20-30) should be maintained. 12% of all infertility results from either weighing too much or too little e,i BMI greater than 27 and lesser than 17 is associated ovulatory dysfunction and resultant infertility [6]. General population and the General practitioners must aware of this important message.

Stress; Physical as well as Psychological stress plays an important role in infertility. Couple needs to get relief of stress before getting pregnancy. Someone needs to get proper treatment otherwise it affects the outcome of treatment, also seen that relieve of stress increases the pregnancy rates [7].

Drinking too much alcohol, drugs, cannabis, tobacco and smoking should be avoided, as they are detrimental to fertility. Smoking is responsible for 13% of female infertility [8]. also it is responsible for male infertility. Moderate to heavy drinking of alcohol affects both partner female [9]. and male [10]. This information need to be disseminated among the general population. Interestingly studies showed that much of the infertility associated with smoking could be reversed within a year of cessation [11].

Female fertility may be affected by vigorous exercise; Male fertility is not influenced by exercise.

Diet In healthy people, there is no strong evidence that dietary variations like low fat diet, vitamins or antioxidants improve chance of fertility [12]. However undiagnosed celiac disease may cause female or male infertility, which resolves by adopting gluten-free diet.

Regular hot bath, tight underclothes, exposure to toxins like aniline dye, dioxin from working places heavy metals, pesticide, and possibly bisphenol A (BPA) can have adverse effects on male fertility. Radiation suppresses the germ cell of both ovaries and testes, which may produce infertility. Both male and female should use protective shield while working in radiology department.

STD results infertility by producing tubal block in women and porosities in men. Therefore using condom an avoidance of polygamous relationship is mandatory. Steps should be taken to prevent PID, screening and treatment of STD for both partners are vital.

Male fertility is reduced by some drugs like -steroids, sulphazazine, and anticonvulsants and prolongs use of nitrofurantoin, so they need to be avoided. Chlamydial or gonococci treatment must be treated once it is diagnosed. US Preventive Service Task Force recommends high-intensity behavioral counseling to prevent STI [13].

Chemotherapy can suppress the oocytes and sperms. For post pubertal male patients, semen cryopreservation has long been established. For pre pubertal boys, research is advancing in the area of testicular cryopreservation. Oocyte cryopreservation and Gonadal tissue preservation can be done if facility is available.

Any medical disease for both men and women needs to be treated. Infection prevention strategies should be strictly maintained during delivery, D and C, MVA, IUCD insertion.

Conclusion

Though all the causes of infertility are not known but by maintaining BMI, avoiding cigarette, drugs, too much alcohol, junk food and practicing safe sex and getting pregnancy in right age may prevent many sorrows and suffering of infertility.

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