

## 2. Mother, the Divine Power

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या देवी सर्वभूतेषु मातृरूपेण संस्थिता  
नमः तस्मै नमः तस्मै नमः तस्मै नमो नमः

*The above quoted Sanskrit verse (shloka) has been taken from "Shree Durga Saptasati – Chapter 5, Verse No.73". The verse implies, "O Mother Goddess: You are omnipresent. I salute, I salute Thee for your blessings".*

It has been well established that the cytoplasmic mitochondria of the fertilized ovum or zygote are exclusively derived from the mother<sup>1</sup>. Unlike the other organelles, the mitochondria are enveloped by double unit membranes and contain plethora of enzymes for completing the aerobic respiration and yielding high energy by regeneration of ATP from ADP and inorganic phosphate. Thus the mitochondria are considered as the Power-house of animal cell. Moreover, the mitochondria contain circular forms of DNA, associated with RNA and are capable of synthesizing their own proteins. Therefore, they provide an influence of extra-chromosomal inheritance. Further, they replicate by binary fission, like that of bacteria, thus dissipating the multi-potential energy to all body cells and transmitting that power through generations.

Based on this scientific truth of reproductive biology, the mother represents the symbol of all inherent power of life. This develops the concept possibly by intuition among the ancient Indian Philosophers of Sanatan Dharma (Ever-lasting Region) to worship the diving power in the form of mother<sup>2</sup>.

Let us consider the process of parthenogenesis, which leads to complete development of an embryo by cleavage division of female gamete by endo-reduplication of chromosomes without the participation of a male gamete. Natural parthenogenesis occurs widely in aphides, which are very small insects (e.g. Greenfly) that thrive on plants and harmful to plants. This process produces overflow of female generations only, and appears when the food is abundant, whereas sexual reproduction starts when food becomes scarce<sup>2</sup>. Artificially induced cleavage division of the unfertilized oocyte has been observed in lower vertebrates and in mammals, but has not been reported in humans<sup>3</sup>.

These scientific pursuits further confirm the latent biological energy in the females.

Genomic imprinting suggests that the genes borne by the maternal chromosomes regulate the development of the embryo, whereas those conveyed by paternal chromosomes contribute to the development of placenta and foetal membranes<sup>3</sup>. This is exemplified in complete molar pregnancy (Hydatidiform moles) where a denucleated mature ovum is fertilized by two sperms, at least one of which should be X-bearing sperm. In such abnormal fertilization, the embryoblast is not formed and the trophoblast degenerates as bunches of moles<sup>4,5</sup>.

This phenomenon shows that the mother is more close to the foetus for embryonic development, whereas the father is more concerned with the protective coverings and provides nutrition to the growing foetus through the placenta and umbilical cord. Therefore, both mother and father are indispensable for the up-bringing of the newborn. But one can assess the importance of the mother in the prenatal and initial phase of post-natal period<sup>4</sup>.

The father provides a significant contribution in deciding the chromosomal sex of the offspring at fertilization because he possesses two varieties of sperms in equal proportion: X-bearing and Y-bearing. It is, therefore, evident that without the presence of male, female would not have been born. Thus in vertebrates the very existence of the motherhood depends solely on the reproductive fitness of the males.

### References

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