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Short Communication

Microcephalic Abnormal Brain Development in Children

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DESCRIPTION

Microcephaly has a complex and multifactorial etiology, which can be detected by measuring the newborn's Head Circumference (HC) when it is less than two standard deviations from the specific mean for sex and gestational age, with the measurement being considered severe when it is less than three standard deviations. Reduced head size is frequently linked to alterations in the baby's cognitive system as well as a compromised Central Nervous System (CNS). However, in some neonates with microcephaly, this reduction may not result in aberrant brain development [1]. Microcephaly can be caused by a variety of congenital infectious diseases. Rubella, CMV, syphilis, toxoplasmosis, and herpes simplex are the most frequent among them.

The Zika Virus (ZIKV), an arbovirus that spreads by mosquito bites, was first discovered in 1947 from a female monkey in Uganda's Zika forest. Around one million people in Brazil have been affected with this virus. The principal vector agent is the Aedes aegypti mosquito, which has resulted in a public health emergency. Following the outbreak, there was a significant increase in the number of confirmed instances of microcephaly in Brazil [2].

Approximately 156 new cases of microcephaly were documented annually between 2010 and 2014, according to the Information System on Live Births (SINASC). In 2015, however, there were 1,248 people diagnosed with the condition [3]. The grave scenario of the microcephaly epidemic necessitated a higher financial contribution from Brazil, with a focus on improving the population's quality of life and basic sanitation. In addition to vector control and arbovirus prevention, access to safe drinking water and basic sanitation are critical for increasing life expectancy and lowering mortality, particularly among women and children. Furthermore, effective selective collection of solid waste is critical for better vector control and environmental quality.

In Brazil, the presence of severe structural, social, and economic disparities encourages the spread of insects, while a lack of sufficient structures with basic sanitation and inadequate rubbish collection encourages the spread of pathologies. As a result, developing forceful and appropriate public policies is critical [4]. Microcephaly is caused by a combination of genetic and environmental factors. When a genetic factor is present, chromosomal abnormalities, multifactorial illnesses, or variances in Mendelian genetics are present.

Congenital viral processes, perinatal hypoxia, drug use, maternal phenylketonuria, and ionizing radiation exposure to the uterus can all contribute to environmental conditions. However, studies on the link between microcephaly and the Zika virus in North Eastern Brazil, particularly in the Cariri region, are crucial to know. As a result, the goal of this research is to figure out what variables contributed to the rise in incidence of microcephaly and how it affects mental health.

CONCLUSION

Health professionals, as well as mothers or caregivers, play an important part in the care process, encouraging holistic and humanized care for the growth and enhancement of these children's quality of life. The study found that women experiencing the sorrow of having a child with microcephaly have intense feelings of loss, despair, and pain. It played a critical role in mobilizing all sectors needed to combat the microcephaly epidemic.

The ZIKA virus epidemic has wreaked havoc on young, black, poor women and those who live in high-risk locations. In addition to absorbing the majority of household care, these women are frequently abandoned by their partners in the event of the delivery of a child with microcephaly.

As a result, higher investment in initiatives focused at women's sexual, reproductive, and mental health is required. In Brazil, public measures should be implemented to monitor and care for the emotional and psychological well-being of women who have children with microcephaly in the northeast.

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