LETTERS TO THE EDITOR

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Smiling in the New Born Infant - Clinical Observation and Hypothesis about Etiology

Sir,

The new born human infants spontaneous smile has not been adequately explained in text books (Nelson 1979, Illingworth 1980) apart from its supposed endogenous nature. Hence this research was undertaken.

5 normal infants (3 Male and 2 Female) were studied. They were born as full term normal delivery, without any perinatal complications, febrile or non febrile fits. There was no sign of mental retardation.

The smile was observed with increasing intervals of time, i.e. once in a week for one month; once in 10-15 days for next 2 months; once in 15-20 days for another 2 months and monthly till total one year.

The smile was stereotyped, and repetitive. Mostly it was unilateral sometimes it became bilateral. No movement of the part of the body was observed. The smile was seen as early as 2nd day after birth and as late as 8 months of age. Generally the intensity and frequency of the smile decreased as the infants grew older.

Two hypotheses are offered as explained.

Due to Neuronal Developmental Process

The developing neuron of facial nucleus and axon continue to grow postnatally and innervating zygomaticus minor muscle. As the impulses reach the muscle, it contracts eliciting the smiling responds.

As an ICTAL process

The smile was stereotyped, repetitive seen during semiconscious state. These features quality for the definition of Epilepsy (Mani 1974). Discrete pathological laughing episodes have been described as gelastic epilepsy which is a temporal lobe epileptic equivalent (Gascon and Lombroso 1971).

Taking into account the general impression that smiling is seen in all normal
infants, the second hypothesis has less explanatory value. Apart from these 2 the role of dream is also to be taken into account but it cannot be elaborated in the present state of knowledge.

The neonatal smile is the earliest milestone in developing human infant. It may be of clinical importance that a future mentally retarded child may not have this milestone or develop it lately.

References

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