Summary

It is important to study the expression of genetic code linked the cognitive function in relation to their mode of feeding. Breastfeeding is important for brain development and intelligence as it contain high concentration of long chain polyunsaturated fatty acids as Docosahexonic Acid(D.H.A)and Arachidonic Acid(A.A)all has a crucial role in neurogenesis, neurotransmission and protection against oxidative stress

FADS2 are rate-limiting enzymes in the desaturation of linoleic acid [LA; 18:2(n-6)] to arachidonic acid [ARA; 20:4(n-6)], and α-linolenic acid [ALA; 18:3(n-3)] to eicosapentaenoic acid [EPA; 20:5(n-3)] and docosahexaenoic acid [DHA; 22:6(n-3)].

To our knowledge, there is no study that assess t he expression of FADS2 gene affected by the mood of feeding in preterm babies who were fed exclusive breastfeeding versus fed artificial formula, hence

The aim of this study is to study the expression of genetic code linked the cognitive function in relation to their mode of feeding. This study was carried out on 30 preterm aged range between(32-34wk) who were randomly selected from preterm attending NICU in Dakahliya governorate and. They were attending for care and follow up. They were divided into two groups group I (n=15) who were fed exclusive breastfeeding and the other group (n=15) who were fed artificial formula

The study excludes any preterm with congenital anomalies, blood transfusion, liver or renal disease and any medication that cause gene mutation.

We found that FADS2 gene expression in preterm group that fed exclusive breastfeeding at 3 month increase 109 fold more thanFADS2 gene expression at birth. In the other groupie that fed artificial formula at 3 month gene expression increase 3.58 fold more than at birth. Gene expression at 3 month in the exclusive fed group increase 30.6 fold than artificially fed group. Our finding indicates that importance of breast milk for the preterm babies.

We found that optimal growth for preterm babies can achieved by breast milk of mothers weight of babies increase and babies catch weight and length and head circumference our finding indicate that importance of breast milk for preterm babies.

We found that breast milk protect preterm babies from dangerous complication during staying in intensive care unit as necrotizing enterocolitis in contrast to that babies fed artificial formula.

We found that breast milk protect preterm babies from dangerous complication during staying in intensive care unit as septicemia in contrast to that artificially fed.