Letter to the Editor

Neural tube defects in the African child


Neural tube defects (NTDs) like some other nervous system diseases such as vascular malformations used to be considered uncommon in blacks, especially within the Sub-Saharan region. The work by Djientcheu et al. [1] like so many others cited by them have again shown the conditions not to be as rare as previously thought. It is possible that the changing epidemiological pattern of NTDs is a result of improving awareness of the need to seek health-care by the people of the region as well as a shift of the previously held view of diseases being results of witchcrafts towards an acceptance of the global medically-proven knowledge about the causation of diseases.

Whereas folic acid deficiency has been shown to be a key factor in the development of NTDs and its peri-conceptional supplementation beneficial in the prevention of NTDs [2], the non-, delayed or low-usage of it by expectant [1,3] mothers is a reflection of the overall poor knowledge of the average African woman and of the poor state of health-care delivery in the developing countries. The authors rightly attributed the high rate of infections to the delayed closure of the defects. This is most times a result of delayed presentation of the affected children in the hospitals. In particular, the development of ventriculitis has been shown to be less if closure of the spinal lesion with CSF leak is done within 72 h of life [4]. In addition we [3] have found that most of the organisms responsible for CSF or systemic infections in open NTDs are gram-negative enteric organisms. This is a likely reflection of the contamination of the lesions by fecal matter and calls for a closer attention to perianal hygiene in these children as a means of reducing infective complications. In our centre, we now apply pads in the natal clefts of affected babies to prevent cephalad tracking of feces to the back lesions.

References


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28 November 2008

Response to Letter to the Editor

Neural tube defects in the African child: A commentary

The contribution by Dr Taopheeq Bamidele Rabiu highlights the increasing importance of neural tube defects in the African child and suggests that an improved awareness on the condition may explain a better treatment-seeking behaviour of the people of the African region and the changing epidemiological pattern [1]. Indeed, we have observed an increasing incidence of the condition and this may well be due to the better awareness and improved attitudes of the parents of the affected children [2,3]. The high frequency of NTDs observed in our countries today may also be due to the insufficiency of previous reports and lack of epidemiological studies, the modification of dietary habits and increased poverty. A number of studies have pointed out the high frequency of NTDs in low-income patients [2–4]. However, we also note that several obstacles stand in the way of improved outcomes following treatment in our resource-limited settings. This leaves us with prevention as the main weapon against the devastating effects of neural tube defects in our setting, as some authors including our group have argued [2,3].

Regarding the use of Folic acid in the prevention of neural tube defects, it has been suggested that fortification is much more likely than supplementation to reach the population at risk because the benefit of enhanced Folic acid intake occurs early, typically before the pregnancy is recognized and that fortification is of particular value to women who may not receive prenatal care until the third trimester [5]. Although Folic acid fortification itself raises some issues of cost-effectiveness even in high-income countries because of the very low prevalence rates of neural tube defects, overall, its benefits outweigh the costs when other benefits (stroke and coronary deaths, cost of clinical care and management of complications when neural tube defects are not prevented) are taken into consideration [5]. Nevertheless, in resource-limited settings, although the prevalence rates are high, the challenges of fortification would tend to be of a different nature: variation of prevalence rates even within the same country, absence of an implementation policy, low awareness on the part of healthcare personnel, ignorance of the target population, lack of information