Abstract

Acta Endocrinol (Copenh). 1987 Apr;114(4):497-502.

Selenium deficiency as a possible factor in the pathogenesis of myxoedematous endemic cretinism.

Goyens P, Golstein J, Nsombola B, Vis H, Dumont JE.

BACKGROUND: Myxoedematous endemic cretinism is prevalent in African goitre endemies. It has been related to a thyroid 'exhaustion' atrophy occurring near birth. It is proposed that this might result from the low resistance of a fragile tissue to enhanced H2O2 generation under intense thyroid stimulation by thyrotropin.

DISCUSSION: In support of this hypothesis, low selenium and glutathione peroxidase serum levels have been found in the African endemic area of the Idjwi Island (Kivu, Zaire). Serum selenium and plasma glutathione peroxidase were lower in the area of high endemicity of goitre and cretinism (Northern part of the Island). However, only the former difference is statistically significant.

CONCLUSION: These data thus suggest a role of oligoelements and oxygen toxicity in the pathogenesis of endemic cretinism.

PMID: 3577581