

LA SUPPLEMENTAZIONE DI FERRO DALLO SVILUPPO COGNITIVO ALLA NEUROPROTEZIONE

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World Health Organization stated that iron deficiency is the most common and widespread nutritional disorder in the world. It is the only nutrient deficiency significantly prevalent in developed countries affecting 2 billion people (over 30% of the world's population is anemic). The major health consequences of iron deficiency and anemia include poor pregnancy outcome, lower work productivity in adults, impaired physical and cognitive development and reduced school performance. Anemia contributes to 20% of all maternal deaths and in subjects with cancer and kidney diseases may have a negative impact on prognosis.

Effective management of iron deficiency anemia is mandatory and since dietary changes alone are insufficient, iron supplements are necessary. Limitation of conventional iron supplements is reduced absorption (10% - 20% of total iron intake), metallic taste, gastrointestinal discomfort, nausea, constipation or diarrhea and oxidative stress.

At the same time an excess of iron can be toxic affecting the nervous system cells and increasing the risk of neurodegenerative diseases

To avoid the above limitations of oral iron supplementation, in terms of tolerability and bioavailability, a valid opportunity is represented by oral Liposomal iron (Sideral®). Sideral is a source of highly bioavailable ferric pyrophosphate carried by a liposome membrane. Liposomal technology ensures maximum tolerability and total absence of any side effect that is commonly associated with iron intake. Besides, oral liposomal iron, bypassing normal intestinal mechanism of absorption, shows an increased plasma concentration, better than usual commercial oral iron compounds.

Many different studies shows that Sideral® overcomes the limits of tolerability and bioavailability of conventional oral iron, through a significant increase of the compliance (no side effects) of people taking liposomal iron and, at the same time, an increase of hemoglobin. For example, studies on anemic cancer patients show an increase of Hb levels of 2.2 g/dl after 8 weeks together with an improvement of quality of life. A comparative study shows an equivalent increase of hemoglobin compared to intravenous iron therapy.



PREVALENCE OF IRON DEFICIENCY

- The most common and widespread nutritional disorder in the world
- The only nutrient deficiency which is also significantly prevalent in industrialized countries
- The numbers are staggering: **2 BILLION PEOPLE (OVER 30% OF THE WORLD'S POPULATION) ARE ANAEMIC, MANY DUE TO IRON DEFICIENCY**



**Il ferro è utile per il corretto
sviluppo cognitivo dei bambini**

Effetti funzionali di una precoce carenza di ferro

- Poorer recognition memory
 - Slower conduction in the auditory and visual systems
 - Social/emotional alterations, affective changes
 - Altered interactions with the environment
- **Nati a termine**: ridotto sviluppo neurocerebrale (in età scolare); minori capacità nella memoria uditiva
 - **Nati Pretermine**: anomalie nei riflessi neurologici; minore velocità di conduzione nel sist. nervoso centrale

Ferro, sviluppo cognitivo e neuroprotezione

Milano, 14 Ottobre 2013



Results: Of 2,852 participants, 502 (17.4%) older adults had anemia at baseline. Over 11 years of follow-up, 405 (13.4%) participants developed dementia. In the unadjusted model, those with baseline anemia had an increased risk of dementia (23% vs 17%, hazard ratio = 1.64, 95% confidence interval 1.36, 2.01) compared to those without anemia. The association remained significant after adjusting for demographics, APOE ε4, baseline MMSE score, comorbidity, and renal function. Additional adjustment for other anemia measures (mean corpuscular volume, and cell distribution width), erythropoietin, and C reactive protein did not appreciably change the results. There was no interaction by sex and race on risk of developing dementia.

Conclusion: Among older adults, anemia is associated with an increased risk of developing dementia. Findings suggest that further study of anemia as a risk factor for dementia and a target for intervention for cognitive health is warranted.

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FERRO LIPOSOMIALE



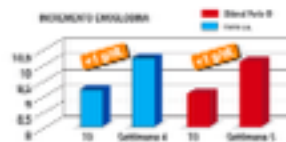
Con la tecnologia liposomiale, il ferro non viene mai in diretto contatto con le mucose



ECCELLENTE TOLLERABILITA'

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- Il ferro liposomiale orale è **NON INFERIORE** alla terapia di supporto con ferro endovena nei pazienti affetti da anemia refrattaria.

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- Un **miglioramento dei parametri di qualità di vita (QOL)** è stato osservato in tutti i pazienti che hanno incrementato i livelli di emoglobina
- Il ferro liposomiale è una **"ottimale alternativa alla supplementazione di ferro i.v."**



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