

## IRON ADMINISTRATION IN WOMEN WITH LOW SERUM FERRITIN BUT NO ANAEMIA IN PRIMARY CARE

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**Aims** To study iron administration and retention in women with low serum ferritin but no anaemia.

**Methods** 120 women aged 17 to 55 complaining of unexplained fatigue, recruited in an academic primary care center and in 8 general practices, were randomly assigned in a double-blind design to either oral ferrous sulfate (80 mg of elemental iron daily) or placebo. We analyse iron treatment for women (n=65) with a low initial serum ferritin concentration ( $\leq 20$  ug/l) at 0,1,2, 3 months. Adherence to treatment was verified by an electronic device recording every opening of the pill container.

**Results** Side effects and mean compliance (>95%) were similar for iron treatment and placebo. Serum ferritin level increase from  $10.0 \pm 4.8$  (m $\pm$ SD) to  $20.9 \pm 8.8$  after one month and from  $10.0 \pm 4.8$  to  $27.9 \pm 11.5$  over 3 months. Mean iron retention index (defined as increase in body iron storage / iron consumed) is higher for the lowest ferritin levels and decreases with the length of treatment, being  $4.3 \% \pm 3.3$  after one month and  $2.0 \% \pm 1.4$  after 2 months. This index varies strongly between the 65 patients from a minimum of -0.6% to 6.4%. For 16 patients who had low retention of iron (<1.35%), we found two cases (12,5%) of coeliakie.

**Conclusions** Low dose oral iron therapy is well followed in primary care medicine. However we found a proportion of 25 % of women who retain poorly iron and need further investigation.