VITAMIN D
UpDates

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EDITORIAL

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Dear Readers,
As you can see, in this issue we are featuring the contribution of Professor Lello, whom we have asked to provide us with an update on the role of vitamin D in pregnancy.
It is known that during pregnancy vitamin D metabolism is modified. In particular, maternal calcitriol serum levels are doubled to meet the increased need for calcium, which is necessary for fetal skeletal mineralization and, probably, to increase immune system tolerance in this particular condition as well. This is achieved thanks to the contribution of the placenta, which acts as an extra-renal site for the conversion of 25(OH)D in calcitriol, and also to the reduction of the expression of the gene encoding the enzyme that catalyzes the active metabolite.
As you will read, vitamin D deficiency has been associated with an increased risk of preeclampsia, impaired tolerance to glucose and bacterial vaginosis in mothers, as well as with low birth weight, hypocalcemic convulsions and impaired skeletal development in newborns. Even if experiences with supplementation are still limited – as you will see – benefits have been observed in women taking cholecalciferol supplements from the beginning of pregnancy, with daily doses comparable to those used by the general population and with a good safety profile.
For this reason, the statement in the current package insert for cholecalciferol – that "in the first six months of pregnancy, vitamin D should be taken with caution…" – could excessively discourage its use, while according to the findings summarized in this issue it is often sustainable and appropriate. At the same, however, it is important to take caution with regard to dosages, given the noted risks of teratogenic effects in overdoses: only the daily dosage is recommended in pregnancy, while bolus administrations should be avoided.
As I myself am about to become a grandfather, I will confess that I have advised my daughter to take 750 IU (3 gtt) of cholecalciferol daily from the first months of pregnancy.
The other contribution that you will find in this issue is by Professor Fagiolini, who highlights a strong link between vitamin D deficiency and depression, psychotic disorders and cognitive dysfunction. As you will see, researchers admit that so far it is unclear whether vitamin D deficiency is a cause or effect of mental pathology. You will certainly appreciate to what degree the meaning changes if I affirm that persons with vitamin D deficiency are 3.5 times more likely to have hallucinations, delirium or symptoms of paranoia, or, conversely, that persons with these symptoms are 3.5 more likely to have vitamin D deficiency.
Furthermore, research has yet to determine whether adding vitamin D supplements can prevent and/or cure these pathological conditions in individuals with vitamin D deficiency. Indeed available studies on the role of vitamin D supplementation have thus far produced contrasting results, perhaps in part because studies in this complex field are not easy to conduct and are for the most part poorly designed.
What do you think?

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