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ABSTRACT

Acitretin in Children

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Acitretin treatment offers the same clinical benefits to children as etretinate, namely effective, convenient oral therapy for severe dermatological conditions in which hyperkeratinization is the main feature. Its important advantage is the shorter period of potential side effects following completion of treatment. However, the possibility of bone disturbances means that their use in children should be restricted to severe forms resistant to the usual treatments. The best indications in children are severe forms of psoriasis, especially erythrodermic psoriasis and pustular psoriasis. Remission or marked improvement can be obtained in severe congenital disorders of keratinization: nonbullous ichthyosiform erythrodermia, bullous ichthyosiform erythrodermia and recessive x-linked ichthyosis. There are other anecdotal reports on foetal Harlequin Papillon Lefevre Syndrome... The spectrum of adverse events is typical of hypervitaminosis A and similar to that reported with the use of other retinoids. With regard to the very marked clinical benefit, acitretin can be prescribed for children, provided certain rules are observed: do not exceed an initial dose of 1 mg per kg per day and quickly reduce to the minimal effective dose, establish a protocol for detection of musculoskeletal complications with very careful surveillance of the child's growth parameters. The incidence of bone disturbances in acitretin treatment in children and the frequency of radiological surveillance is not yet well established. We have set up a protocol in which patients systematically undergo radiological work-up before and once a year during treatment; bone density is assessed by means of computerized tomography. In addition, every 6 months we measure phosphorus and calcium concentrations in blood and urine, together with those of vitamin D metabolism, osteocalcin and PTH. 14 children treated with acitretin have been studied so far. Interestingly we found anomalies in pretherapy values in 6 of the cases studied: 3 had a deficiency, and 3 had abnormally high 1–25 OH D values. So far, no changes in these parameters have been found during treatment. No radiological abnormalities were found during therapy, except in 1 patient who had evidence of demineralization before treatment. The absence of anomalies is no doubt related to the low doses of acitretin used: never exceeded 1 mg/kg/day.

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