Steroids Affect Growth in Nephrotic Syndrome

BY TIMOTHY F. KIRN
Sacramento Bureau

SNOWMASS, COLO. — Glucocorticoid steroid use appears to limit height gains in children with idiopathic nephrotic syndrome, but do not necessarily reduce bone density, Dr. Lenore Buckley said at a symposium sponsored by the American College of Rheumatology.

“The issue of what glucocorticoids do to bone mass in children is an area where we are only just beginning to get some data,” said Dr. Buckley, of the Medical College of Virginia, Richmond.

One cross-sectional study looked at 60 children with isolated idiopathic nephrotic syndrome being treated with glucocorticoids, and compared them with 195 matched controls, mean age 9-10 years. Children treated with both rheumatoid arthritis and inflammatory bowel disease, so it is not clear whether their low densit

The mean body mass index z score for children with nephrotic syndrome was 1.24, while the score for controls was 0.34. There was also a higher percentage of obese children in the nephrotic syndrome group, compared with the control group (38% vs. 16%, respectively), the study found.

A more detailed look at the children’s bone density found that those with nephrotic syndrome had slightly lower trabecular bone density (mean z score –0.27, vs. 0), but much greater cortical bone density (mean z score 0.87, vs. 0).

This situation also suggests that while there may be a process interfering with bone accumulation, there is also some compensation due to weight gain, Dr. Buckley said.

Children with nephrotic syndrome go on and off glucocorticoid treatment, which could allow for some periods of recovery, so these findings may not extrapolate to children treated chronically, Dr. Buckley noted.

“What it tells us is that in the short run, these kids are not at risk of fracture—they have pretty good density,” she said. “But what it doesn’t tell us is the risk of fracture in the future.”

Adults not taking glucocorticoids whose rate was one standard deviation below the mean as a child have a four times higher risk of fracture, studies show.

“In the short run, these kids are not at risk of fracture—they have pretty good density.”

DR. BUCKLEY

More detailed information is available on request.

No. 10

Copyrighted by: Novo Nordisk A/S

2009 Equipment, Denmark

Novo Nordisk Inc., Princeton, N.J.

Novo Nordisk A/S

2009 Equipment, Denmark

Novo Nordisk Inc., Princeton, N.J.


Dates of Issue: November 29, 2001; December 14, 2002.