Calcium Supplements Don’t Protect Kids From Fractures

BY JONATHAN GARDNER
London Bureau

Calcium supplementation has little effect on bone mineral density in children and is unlikely to prevent fractures in childhood or adulthood, reported Tania Wizenberg and her fellow investigators. The metaanalysis of 19 randomized controlled trials (BMJ 2006 [Epub doi:10.1136/bmj.38920.564000.55]), which included 2,839 children, found that children who take calcium supplementation did not have significantly greater bone mineral density (BMD) at the femoral neck or at the lumbar spine at the end of trials or after supplementation. The studies had a treatment period of at least 3 months, and bone outcomes were measured after at least 6 months of follow-up, according to Ms. Wizenberg, and of the Menizies Research Institute, Hobart, Australia, and her fellow researchers.

At the upper limb, the metaanalysis showed a difference of 0.38 mg/cm² at the end of trials and 0.63 mg/cm² after supplementation was stopped, a statistically significant increase of 1.7 percentage points over control populations. A single study that evaluated total bone density showed no persistent effect, they reported.

“This small increase in upper limb bone mineral density is unlikely to result in a clinically important decrease in the risk of fracture,” they wrote. “Importantly, we found no effects at other sites where fracture is common.” Based on studies showing lower BMD among children who suffer upper limb fractures, the authors forecasted a 0.2% decrease in a young boy or 0.1% in girls. The public health impact of this is likely to be small,” they said.

Eventual Goal of Runner’s Knee Therapy Is To Be NSAID Free

BY MELINDA TANZOLA Contributing Writer

MIAMI—The first goal of treatment in patellofemoral pain syndrome is to reduce and eventually discontinue NSAIDs, Dr. Joseph Congeni said at a meeting on pediatric sports medicine sponsored by the American Academy of Pediatrics.

Patellofemoral pain syndrome is the most common sports-related overuse injury in young athletes, occurring at least once in an estimated 30%–40% of female athletes. Also known as runner’s knee, the syndrome is usually caused by improper tracking of the kneecap in the patellofemoral groove. Instead of riding smoothly in the groove, the malaligned patella is shifted, a condition that causes pain and inflammation. A few cases result from compression of the kneecap, which can develop if the hamstring muscle is significantly stronger than the quadriceps, a situation common in younger children who have just gone through their growth spurt or teenage boys.

The incidence of tracking PFS is about five times greater in girls than in boys. Several anatomical factors contribute to PFS, including femoral antever- sion, kneecaps pointing toward each other (“squinting patellae”), genu varum (bowleg), and tibia varum. The feet compensate for the malalignment by pronating, and these factors together result in the pain associated with PFS. In many cases of PFS, a latero-

The functional tests of a patient with PFS, as performed by Dr. Congeni, revealed a high-riding kneecap, or patella alta, in a patient with PFS. X-ray shows a high-riding kneecap, or patella alta, in a patient with PFS.

Overuse Injuries Common In Little League Pitchers

BY MELINDA TANZOLA Contributing Writer

MIAMI—For serious young baseball players, adherence to recommended pitching limitations and proper management of overuse injuries can help ensure continued healthy pitching, Dr. Andrew Gregory explained at a meeting on pediatric sports medicine sponsored by the American Academy of Pediatrics.

The highly repetitive action of pitching can result in overuse injuries of two joints, generally referred to as Little League elbow or Little League shoulder. Young pitchers are often serious in their sport, sometimes playing on multiple teams at once in hopes of earning a college scholarship or playing professionally. Such intense participation at an early age, however, can have long-term consequences. About one-third of Little League pitchers never play in high school because of overuse in their younger years, according to Dr. Gregory of the departments of orthopedics and pediatrics at Vanderbilt University in Nashville, Tenn.

This number may seem high, but pain is a common occurrence in pitching. According to a review of 476 pitchers aged 9–14 years, 7% of youth pitching results in pain, and 28% of pitchers report elbow pain at least once in a season. As Dr. Gregory explained, “They’re subjecting themselves to this maximal force over and over again, by trying to throw as hard as they can every time.”

Most young pitchers with Little League elbow will present with medial elbow pain that occurs only with throwing; they may or may not be able to fully straighten the arm. It is a constellation of problems, the first being stress injury to the medial epicondyle apophysis,” Dr. Greg- ory said in an interview. He explained that continuing to pitch through the pain can lead to a loss of blood supply to the joint and irritation of the ulnar nerve. When the athlete can throw without pain, he may be referred for further evaluation to determine the cause of the pain and then referred to a sports medicine specialist for treatment.

“In the past, we would not have recommended throwing until the pain was gone,” Dr. Gregory said. “This small increase in upper limb bone mineral density is unlikely to result in a clinically important decrease in the risk of fracture,” they wrote. “Importantly, we found no effects at other sites where fracture is common.” Based on studies showing lower BMD among children who suffer upper limb fractures, the authors forecasted a 0.2% decrease in a young boy or 0.1% in girls. The public health impact of this is likely to be small,” they said.

The main treatment should be rest from all throwing. Treatment also should include ice, NSAIDs for pain, scapular and core stabi-

They’re subjecting themselves to this maximal force over and over again, by pitching as hard as they can.

Dr. GREGORY

PREVENTING OVERUSE INJURIES

The following tips can help prevent overuse injuries in young pitchers:

• Do not throw curveballs before age 14 or sliders before age 16.
• Avoid changing pitching mechanics.
• Pitch for only one team at a time.
• Do not pitch and catch for the same team.

The functional tests of a patient with PFS, as performed by Dr. Congeni, revealed a high-riding kneecap, or patella alta, in a patient with PFS. X-ray shows a high-riding kneecap, or patella alta, in a patient with PFS.

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