Low bone mineral density common in children and teenagers with inflammatory bowel disease
23 August 2010

A thesis from the University of Gothenburg (Sweden) is the first in Scandinavia to study the occurrence of low bone mineral density in children and teenagers with inflammatory bowel disease. Half of the patients in the study showed signs of low bone mineral density. The results emphasise the importance of treating the underlying inflammatory bowel disease more effectively, and of measuring bone mineral density in this group of patients.

Low bone mineral density, or BMD, was evident in around half of the 144 participants with inflammatory bowel disease aged between six and 19 in a major study in western Sweden. Disturbed development of BMD during childhood and adolescence may increase the risk of osteoporosis later in life and thus the likelihood of fractures.

"Possible risk factors for low BMD were more severe disease with increased inflammatory activity in the gut, male gender and low body mass index," says Susanne Schmidt, researcher at the Institute of Clinical Sciences.

Genetic factors also had a major role to play in the children's BMD, aside from their chronic gastrointestinal inflammation which itself can affect BMD.

"We investigated the children's biological parents and measured their BMD," says Schmidt. "We found a clear correlation between the parents' and the children's BMD. Where both parents had a low BMD, a child was six times more likely to have a low BMD too. A similar correlation has previously been described in healthy children and their parents."

However, the researchers saw that after two years of recovery, which will be investigated more closely in a follow-up study.

According to Schmidt there have, to date, been neither international nor national guidelines for monitoring BMD in children and teenagers with inflammatory bowel disease. She therefore sees a need to introduce checks on BMD, particularly in those patients with risk factors, such as more active disease, low body mass index or parents with a known low BMD.

"The results of the study also underline the importance of optimising the treatment of these patients to minimise the inflammation which is partly behind the low BMD."

Provided by University of Gothenburg