A 57-year-old man with a history of rectal bleeding in the past year was admitted to the Western Galilee Hospital with acute onset of massive rectal bleeding. Colonoscopy had previously revealed diverticulosis and hemorrhoids. On admission, clotting parameters were within the normal range, heart rate was 130, blood pressure 93/50, and there was a brief episode of loss of consciousness. Despite resuscitation with crystalloids and blood replacement, bleeding continued and hemoglobin fell, eventually reaching 6.2. A CT angiogram was performed before conventional angiography. CT angiography [Figure 1] clearly demonstrated the source of the bleeding as a branch of the superior hemorrhoidal artery, obviating the need for angiography of the superior mesenteric artery, inferior mesenteric artery and both internal iliac arteries to find the bleeding vessel; in fact without the CT angiogram it is likely that the examination may have been negative since angiography of the IMA did not demonstrate active bleeding [Figure 2]. In light of the CT angiogram, super-selective angiography of the pelvic branches of the IMA was carried out immediately after the IMA injection [Figure 3] and embolization with microcoils and microfibrillar collagen arrested the hemorrhage [Figure 4].

CT angiography has emerged in recent years as a preferred primary imaging modality in acute gastrointestinal bleeding. It was shown (in a porcine model) to depict active intraluminal bleeding at even lower extravasation.
rates than required for the detection of active hemorrhage during conventional angiography (0.3 ml/min compared to 0.5 ml/min respectively) [1]. It was also shown in a prospective study by Yoon et al. [2] to have a sensitivity of 90.9% and specificity of 99.0%. It also has the advantage of speed and availability, of being non-invasive, and having the ability to localize the bleeding site and sometimes the underlying pathology.

We suggest that in cases of acute gastrointestinal hemorrhage, when available, CT angiography should be performed immediately prior to angiography in order to facilitate directed and swift endovascular intervention.

**Correspondence:**
Dr. J. Singer-Jordan
17 Raqefet Street, Ma’alot 21017, Israel
Phone: (972-4) 957-0736
email: osdoctor@mac.com

**References**


---

**Capsule**

**Depression and osteoporosis**

A massive study has shown a clear connection between depression and loss of bone mass. The research was conducted by Hebrew University of Jerusalem scientists Prof. Yirmiya, head of the Brain and Behavior Lab, and Prof. Bab, head of the Bone Lab. Osteoporosis is the most widespread degenerative disease in the developed world, afflicting 1 in 3 women and 1 in 5 men over the age of 50. Sufferers experience decrease in bone density that often leads to bone fractures, in many cases resulting in severe disability and even death. Despite the accumulating evidence for a connection between depression and decreased bone density, health authorities such as the U.S. National Institutes of Health and the World Health Organization have not yet acknowledged depression as a risk factor for osteoporosis due to the lack of studies in large samples. To remedy this situation, the Hebrew University researchers assembled the data from all studies on the subject to date and conducted a meta-analysis. Using data from 23 studies in 8 countries, the study compared the bone density of 2327 people with depression versus 21,141 non-depressed individuals. The results, recently reported in *Biological Psychiatry*, indisputably show that depressed individuals have a substantially lower bone density than non-depressed people, and that depression is associated with a markedly elevated activity of cells that break down bone (osteoclasts). The authors found that the association between depression and bone loss was stronger in women than men, especially young women before the end of their monthly period. This connection was especially strong in women with clinical depression diagnosed by a psychiatrist, but not in community studies in which the respondents subjectively identified themselves as being depressed using self-rating questionnaires. Based on the present findings, Profs. Yirmiya and Bab propose that “all individuals psychiatrically diagnosed with major depression are at risk for developing osteoporosis, with depressed young women showing the highest risk. These patients should be periodically evaluated for progression of bone loss and signs of osteoporosis, allowing the use of anti-osteoporotic prophylactic and therapeutic treatments.”

*Israel High-Tech & Investment Report, December 2009*

---

**Capsule**

**Growth hormone deficiency may be over-diagnosed in short children with high BMI**

Stanly and co-researchers reported the results of growth hormone (GH) stimulation testing in 116 normal-weight children and adolescents (mean age 10.3 years) with short stature. Body mass index (BMI) standard deviation score was significantly and inversely associated with peak stimulated GH levels, regardless of whether SD score was based on bone age or chronological age. In contrast, height SD score was not significantly associated with peak GH levels. In multivariate analyses, higher BMI was consistently and independently associated with lower peak growth hormone levels. The authors conclude that even in a normal-weight cohort, children with higher BMI are disproportionately over-diagnosed with GH deficiency.

*J Clin Endocrinol Metab* 2009; 94: 4875

Eitan Israeli