News and Views

NEWS

Index to identify postmenopausal women at risk for osteoporosis

Osteoporosis is often a silent disease with few noticeable symptoms. This is a progressive condition occurs when bones grow structurally weak and become more likely to fracture or break. According to the national osteoporosis foundation, about 34 million adults nationwide have low bone density.[1] Further, postmenopausal women face a greater risk of developing osteoporosis compared to younger women or men, as the body tends to break down old bone tissue faster than it can be replaced.[2] According to a prospective cohort study conducted on 23,573 participants aged between 50 and 79 years at forty clinical centers as a part of Women's Health Initiative Clinical Trial, participants with moderate to severe menopausal symptoms were more likely to fracture a hip during the follow-up period than women who had no menopausal symptoms.[3] Researchers have previously shown that it is difficult to predict an individual's bone loss by testing the blood or urine for proteins that reflect either bone breakdown or bone formation alone.[4] Therefore, recently researchers from the University of California have created an index that accounts for both bone breakdown and bone formation to predict bone loss. Urine and blood samples were taken from the women to measure for bone turnover proteins that reflect bone breakdown and bone formation. Researchers then combined measurements of bone breakdown and bone formation in a bone balance index to determine each individual's net bone balance before the final menstrual period. They found that this index was a stronger predictor of bone loss from 2 years before the final menstrual period to 3–4 years later and was most effective in predicting bone loss in the spine. This novel approach helps clinicians to identify and advise women on how to better prevent osteoporosis and other bone conditions.

REFERENCES

- National Osteoporosis Foundation; 2012. Available from: https://www.nof.org. [Last accessed on 2016 Jun 20].
- 2. Black DM, Rosen CJ. Clinical practice. Postmenopausal osteoporosis. N Engl J Med 2016;374:254-62.
- 3. Crandall CJ, Aragaki A, Cauley JA, Manson JE, LeBlanc E, Wallace R, et al. Associations of menopausal vasomotor symptoms with fracture incidence. J Clin Endocrinol Metab 2015;100:524-34.
- Shieh A, Han W, Ishii S, Greendale GA, Crandall CJ, Karlamangla AS. Quantifying the balance between total bone formation and total bone resorption: An index of net bone formation. J Clin Endocrinol Metab 2016; jc 20154262. DOI: 10.1210/jc.2015-4262.

VIEWS

Childhood obesity and its preventive measures

Obesity is defined as the excessive accumulation of body fat that can negatively affect the health of an individual. The prevalence of childhood obesity is increasing at an alarming rate. Childhood obesity is an important risk factor for many of the diseases such as diabetes, hypertension, and cardiovascular diseases. It has been reported that abdominal obesity both in children and adults increases the risk of cardiovascular diseases by 1.5 times. Childhood obesity predisposes the risk of obesity in adults. Childhood obesity is also known to cause poor self-esteem, reduced cognition, poor school

performance, and depression and sleep disorders. It has been reported that the increase in body weight after puberty is mainly due to the deposition of fat. Studies have shown that increase in body weight should be <5 kg in both males and females after the age of 20 years. Moreover, as age increases, the body weight should be maintained constantly or reduced. Abdominal obesity is mainly associated with unhealthy eating habits such as excessive intake of refined carbohydrates and animal fat. Reduced physical activity and unhealthy food habits are the two major causes of obesity in children. Therefore,

Venugopal: News and Views

the best way to prevent childhood obesity is mainly lifestyle modification. Inculcating healthy eating habits and adequate physical activity among children can reduce the incidence of childhood obesity and thereby reduce the morbidity of diseases associated with obesity.

Address for correspondence:

Dr. Lalitha Venugopal, Department of Physiology, Indira Gandhi Medical College and Research Institute, Puducherry - 605 009, India. E-mail: lalitha.jipmer2010@gmail.com

