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Review of international medical news

American scientists assessed the impact of daily consumption of 1 avocado on the lipid profile of adults with abdominal obesity.

The study involved 786 adults with abdominal obesity living their usual lifestyle. Of these, 389 participants consumed one avocado daily for 26 weeks, while 397 participants maintained their usual diet without the additional inclusion of avocado.

Analysis showed that daily consumption of 1 avocado for 26 weeks led to a reduction in total low-density lipoprotein concentration compared to the usual diet without its addition. The mean difference between groups was 49.1 nmol/L.

The authors concluded that daily consumption of one avocado for 26 weeks contributes to lowering the concentration of atherogenic low-density lipoproteins in adults with abdominal obesity.

According to the American Journal of Clinical Nutrition

Scientists from New Delhi evaluated the effectiveness of an artificial intelligence (AI) algorithm based on smartwatch data for the early detection of heart failure (HF) progression.

Data from 124 patients with HF with reduced ejection fraction and NYHA functional class III were analyzed. Participants used smartwatches connected to an application that continuously monitored heart rate.

Analysis showed that the application's algorithm accurately predicted an increase in N-terminal pro-B-type natriuretic peptide levels as an indicator of worsening HF.

The authors concluded that the AI algorithm based on smartwatch data is able to detect worsening HF earlier than traditional weight monitoring.

According to the JACC: Heart Failure

Experts from the American College of Cardiology presented an updated algorithm for the management of patients with heart failure with preserved ejection fraction, with special emphasis on the treatment of comorbidities.

The document recommends simultaneous management of coronary artery disease, atrial fibrillation, arterial hypertension, chronic kidney disease, diabetes mellitus, and obesity, as these conditions largely determine the course of the disease and prognosis.

Furthermore, special attention is given to early and accurate diagnosis. For patients with dyspnea, edema, and other characteristic symptoms, a stepwise diagnostic algorithm is proposed, including the use of diagnostic scores, differential diagnosis, exclusion of conditions with similar manifestations, and consideration of sex differences.

According to the American College of Cardiology Journal

Scientists evaluated clinical outcomes after transcatheter aortic valve (AV) replacement depending on the anesthesia method.

The analysis included data from 3,586 patients who underwent transcatheter aortic valve replacement for the first time (1,793 in each group after matching). Moderate sedation, regional, epidural, local anesthesia, nerve block, or injectable anesthesia were used.

One year after the procedure, the risk of developing heart failure was 1.44 times higher in patients who received general anesthesia compared to patients who received less invasive anesthesia methods.

The authors concluded that less invasive anesthesia methods in transcatheter replacement are a safe alternative to general anesthesia.

According to the Journal of Clinical Anesthesia

Experts presented new research according to which people with a higher burden of modifiable risk factors, such as high blood pressure, high cholesterol, diabetes mellitus, smoking, and obesity, exhibit more extensive plaque formation in the major coronary arteries (CA).

Specialists analyzed 534 plaques in 131 patients who underwent optical coherence tomography. It was found that patients with a greater number of risk factors had more plaques in all three major CAs. Additionally, a higher number of modifiable risk factors was associated with a lower number of stable plaques and a more frequent presence of vulnerability features, such as lipid plaques with thin fibrous caps prone to rupture.

According to the authors, prospective studies involving larger cohorts, including patients previously treated for CA blockage, are needed to generalize the results obtained.

According to the JACC: Advances

Scientists from the University of Oxford developed a new method for assessing sarcopenic obesity based on cardiovascular magnetic resonance imaging data and studied its association with cardiovascular outcomes.

Data from 55,768 cardiovascular MRIs were analyzed. Using a deep learning algorithm, researchers assessed the mass of the pectoralis major muscle and combined this data with body weight to calculate a new index of sarcopenic obesity. The scientists then correlated it with cardiovascular outcomes, mortality, genetic features, and changes in gene expression.

Analysis showed that a higher sarcopenic obesity index was associated with a 31% increased risk of developing heart failure, a 51% increased risk of cardiovascular death, and a 37% increased risk of death from any cause. Furthermore, a high index was associated with adverse cardiac remodeling.

According to the Journal of the American College of Cardiology