CLIPPINGS

Orange juice limits postmeal fat oxidation
(*Adv Nutr 2012; 3:629S-635S*)

Caloric beverages may promote weight gain by simultaneously increasing total energy intake and limiting fat oxidation. During moderate intensity exercise, caloric beverage intake depresses fat oxidation by 25% or more. This randomized crossover study describes the impact of having a caloric beverage with a typical meal on fat oxidation under resting conditions. On 2 separate days, healthy normal-weight adolescents and adults consumed the same breakfast with either orange juice or drinking water and sat at rest for 3 hours after breakfast. Both meals contained the same amount of fat (12 g). Resting fat oxidation 150 min after breakfast was significantly lower after breakfast with orange juice. The results suggest that, independent of a state of energy excess, when individuals have a caloric beverage instead of drinking water with a meal, they are less likely to oxidize the amount of fat consumed in the meal before their next meal.

COMMENT It appears that it is better to drink water after a meal than orange juice especially for those who want to lose weight.

Early surfactant treatment for respiratory distress syndrome
(*Cochrane Database Syst Rev 2012;11: CD001456*)

This systematic review studied the effects of early versus delayed selective surfactant therapy for newborns intubated for respiratory distress within the first two hours of life. Randomized and quasi-randomized controlled clinical trials comparing early selective surfactant administration (surfactant administration via the endotracheal tube in infants intubated for respiratory distress, not specifically for surfactant dosage) within the first two hours of life versus delayed selective surfactant administration to infants with established RDS were considered for review. Six randomized controlled trials met selection criteria. The meta-analyses demonstrate significant reductions in the risk of neonatal mortality, chronic lung disease; and chronic lung disease or death at 36 weeks associated with early treatment of intubated infants with RDS. Intubated infants randomized to early selective surfactant administration also demonstrated a decreased risk of acute lung injury including a decreased risk of pneumothorax, pulmonary interstitial emphysema, and overall air leak syndromes. A trend toward risk reduction for bronchopulmonary dysplasia or death at 28 days was also evident.

COMMENT Early selective surfactant administration given to infants with RDS requiring assisted ventilation leads to a decreased risk of pneumothorax, pulmonary interstitial emphysema, chronic lung disease and a decreased risk of neonatal mortality.

Serum alkaline phosphatase and vitamin D deficiency
(*J Coll Physicians Surg Pak 2012; 22:42-7*)

This study explored the role of serum alkaline phosphatase in screening for vitamin D deficiency was explored. Patients attending the Orthopedic outpatient with complaints of pain in different body regions and serum vitamin D3 levels of less than 30 ng/mL were included in the study. Patients with vitamin D deficiency were further categorized into mild deficiency (20-29 ng/mL), moderate deficiency (5-19 ng/mL) and severe deficiency forms (< 5 ng/mL). Pearson correlation was applied to test the correlation of serum alkaline phosphatase levels with serum vitamin D3 levels. All of the patients in the three groups had alkaline phosphatase within normal limits. The intergroup comparison showed highest values of alkaline phosphatase in the moderate vitamin D deficiency group.

COMMENT Serum vitamin D3 levels may not be correlated with increased serum alkaline phosphatase levels. Therefore, alkaline phosphatase may not be a reliable screening test to rule out vitamin D deficiency.

Amantadine in child psychiatry
(*Can Acad Child Psychiatry 2013; 22:55-60*)

This article reviews the published literature regarding the pharmacology and use of amantadine in child and adolescent psychiatry. A literature search of several databases was done to obtain relevant articles. The psychotropic effect of amantadine is related to its antagonism of the N-methyl-D-aspartate (NMDA) receptor. It decreases the toxic effects of the glutamatergic neurotransmitter system which plays an important role in many psychiatric disorders. Two randomized controlled trials (RCTs) of amantadine were identified in children and adolescents. One reported beneficial effects in controlling the symptoms of irritability and hyperactivity in autistic disorder and the other described a significant impact in attention deficit hyperactivity disorder (ADHD). Two open label studies also reported positive effects in ADHD. A pilot study in children with enuresis reported significant reduction in wetting frequency. Studies in adults, with relevance to children and adolescents, reported effectiveness in resistant depression, obsessive compulsive disorder and in counteracting side effects of some psychotropic medications. RCTs found in traumatic brain injury indicated a neuroprotective effect and effectiveness in controlling agitation and aggression. Amantadine is well tolerated in children and adolescents, with an acceptable side effect profile, and considered safe for long term use.

COMMENT Amantadine shows potential for use as a safe alternative or as an augmenting agent for treating children with neuropsychiatric and various other disorders.

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