

Low vitamin D levels may increase the risk of common cold (*Arch Intern Med* 2009; 169: 384-390)

Vitamin D deficiency appears to weaken the body's defenses against upper respiratory tract infections, as per National Health and Nutrition Examination Survey (NHANES), USA. Endogenous antimicrobial peptide cathelicidin, which mobilizes neutrophils and monocytes, has a defined vitamin D-dependent mechanism. In this study, the odds ratio for infections among those with serum 25-(OH) vitamin D levels between 10-30 ng/mL vs those with levels <10 ng/mL, was 1.24 (95% CI 1.07 to 1.43), adjusted for the season, geographic region, age, smoking status, chronic illnesses, and other factors. The apparent influence of vitamin D levels was strongest in people with COPD and asthma.

COMMENT Common cold is of viral origin and requires no specific treatment. Vitamin C has been already linked with treatment of common cold. Role of vitamin D supplementation would need more examination and further studies.

Fluticasone – effective long-term maintenance for pediatric atopic dermatitis (*Pediatr Allergy Immunol* 2009; 20: 59-66)

Treatment options for atopic dermatitis in children are limited. This randomized, placebo controlled, multicentric study examined the safety and efficacy of long term intermittent treatment with 0.005% fluticasone propionate ointment in preventing exacerbations of atopic dermatitis. A total of 90 children (age 4-10 years) with moderate to severe atopic dermatitis presenting with an acute exacerbation were included. Children whose atopic dermatitis was in remission after this phase were entered into the maintenance phase, during which they were randomly assigned to receive fluticasone propionate ointment twice weekly or placebo ointment twice weekly for up to 16 weeks, in addition to twice daily emollient. Intermittent treatment with fluticasone propionate resulted in less severe atopic dermatitis and had a significantly reduced risk of further relapse compared to those who received

placebo. The median time to relapse for patients receiving intermittent fluticasone propionate was in excess of 16 weeks as compared to 2.6 weeks for those receiving intermittent placebo.

COMMENT This approach of treating atopic dermatitis with intermittent topical fluticasone therapy could become a 'steroid-sparing' alternative for children who frequently require topical steroids. Intermittent treatment also delays recurrence and exacerbations of atopic dermatitis.

Updated formula measures kidney function more accurately (*J Am Soc Nephrol* 2009; 20: 629-637)

Measuring kidney function in children can be expensive, time-consuming, and tedious. Researchers at Department of Pediatric Nephrology, University of Rochester worked to find out a better formula to calculate GFR in children suffering from Chronic Kidney Disease (CKD). The study included 349 patients from more than 50 institutions across North America and was based on data collected by the Chronic Kidney Disease in Children (CKiD) Study. The new glomerular filtration rate (GFR) formula is based on height and gender, serum creatinine, blood urea nitrogen and cystatin C. In addition, the study developed a quick bedside calculation that offers a good approximation of the GFR formula from the child's height in centimetres, serum creatinine level, and a constant that relates this estimate to the measured level of GFR [$GFR=0.413*(\text{height}/\text{serum creatinine})$].

COMMENT An accurate estimate of GFR is crucial to properly treat children with acute and chronic kidney problems. Currently, the Schwartz formula is being used to estimate GFR in children, which was developed in the mid-1970s. This new calculation for GFR in children could prove a valuable tool for adjusting fluids, antibiotics, and chemotherapy and more accurately assessing kidney function in children with chronic kidney disease (CKD).

Amit P Shah
drnehamit@gmail.com