

 **Cyclosporine drops for vernal conjunctivitis.** (*Adv Clin Exp Med. 2014; 23:455-61.*)

Vernal keratoconjunctivitis (VKC) is a chronic, bilateral inflammation of the conjunctiva that mostly affects children and young adult males. Management of VKC is primarily aimed at reducing symptoms and preventing serious vision-threatening sequelae. The randomized placebo-controlled trial assessed the efficacy of topical cyclosporine A (CsA) 0.05% on the signs and symptoms in the management of VKC. Sixty-two patients with VKC were randomly assigned to treatment with topical 0.05% CsA eye drops or a placebo (artificial tears) 4 times daily, for a period of 4 weeks. Ocular signs and symptoms were scored at entry and at the end of 4 weeks. Mean post-treatment scores were lower in cyclosporine group than those in placebo group ($P < 0.001$). No side effects of the treatment with CsA 0.05% eye drops were observed.

 **Benefits of pomegranate juice after exercise.** (*J Pak Med Assoc. 2014; 64:785-90.*)

The aim of this study was to evaluate the efficacy of pomegranate juice supplementation on improving antioxidant function in young (age 18-24 yrs) healthy adult males during exhaustive exercise. The study participants (28) were randomly divided into control and supplemented groups. One cup of pomegranate juice or one cup of tap water was given daily for two weeks to supplemented and control groups, respectively. Fasting blood samples were taken at baseline and at the end of two weeks of intervention. The participants were given one exhaustive exercise and then fasting blood samples were taken for testing blood glutathione peroxidase and superoxide dismutase, and serum levels of high sensitivity C-reactive protein, zinc, ceruloplasmin, matrix metalloproteinases 2 and 9, malondialdehyde and total antioxidant capacity. The blood levels of glutathione peroxidase and superoxide dismutase and serum levels of total antioxidant capacity after exhaustive exercise in the supplemented group were significantly increased ($P < 0.05$), while the content of matrix metalloproteinases 2 and 9, ceruloplasmin and malondialdehyde showed a significant decrease in comparison to the control group. Authors concluded that regular intake of pomegranate juice significantly modulates matrix metalloproteinases 2 and 9, and serum levels of some inflammatory factors, and thus protects against exhaustive exercise-induced oxidative injury in young healthy males.

 **Utility of dipstick urinary analysis in febrile children.** (*Pediatrics. 2014; 134:523-9.*)

The performance of automated flow cytometric urinalysis is not well described in pediatric urinary tract infection. This study sought to determine the diagnostic performance of automated cell

counts and emergency department point-of-care (POC) dipstick urinalyses in the evaluation of young febrile children. A convenience sample of febrile pediatric emergency department patients <48 months of age, who underwent urethral catheterization to obtain POC, was selected, and automated urinalyses and urine culture were done. Receiver operating characteristic (ROC) analyses were performed and diagnostic indices were calculated for POC dipstick and automated cell counts at different cut-off points. Of 342 eligible children, 42 (12%) had urinary bacterial growth ≥ 50000 /mL. The areas under the ROC curves were: automated white blood cell count, 0.97; automated bacterial count, 0.998; POC leukocyte esterase, 0.94; and POC nitrite, 0.76. Sensitivities and specificities were 86% and 98% for automated leukocyte counts ≥ 100 /iL, and 98% and 98% for bacterial counts ≥ 250 /iL. POC urine dipstick with 1+ or more leukocyte esterase or positive nitrite had a sensitivity of 95% and a specificity of 98%. Combinations of white blood cell and bacterial counts did not outperform bacterial counts alone.

Authors concluded that automated leukocyte and bacterial counts performed well in the diagnosis of urinary tract infection in febrile pediatric patients, but dipstick may be an acceptable alternative in clinical settings that require rapid decision-making.

 **Effects of hypothermia for perinatal asphyxia.** (*N Engl J Med. 2014;371:140-9.*)

In the Total Body Hypothermia for Neonatal Encephalopathy Trial (TOBY), newborns with asphyxial encephalopathy who received hypothermic therapy had improved neurologic outcomes at 18 months of age, but it is uncertain whether such therapy results in longer-term neurocognitive benefits. Newborns ($n=325$) with asphyxial encephalopathy who were born at a gestational age of 36 weeks or more were randomized to receive standard care alone (control) or standard care with hypothermia to a rectal temperature of 33 to 34°C for 72 hours, within 6 hours after birth. The neurocognitive function of these children at 6 to 7 years of age was assessed. The primary outcome of this analysis was the frequency of survival with an IQ score of 85 or higher. A total of 75 of 145 children (52%) in the hypothermia group versus 52 of 132 (39%) in the control group survived with an IQ score of 85 or more. More children in the hypothermia group than in the control group survived without neurologic abnormalities. Among survivors, children in the hypothermia group, as compared with those in the control group, had significant reductions in the risk of cerebral palsy (21% vs. 36%, $P=0.03$) and the risk of moderate or severe disability (22% vs. 37%, $P=0.03$); they also had significantly better motor-function scores.

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