Does the use of EMLA cream decrease the pain of circumcision in newborn boys?

Evidence-Based Answer

Yes. The use of EMLA cream does decrease pain, but it is likely that a dorsal penile nerve block (DPNB) does an even better job. Neither will completely eliminate the discomfort of the procedure. (SOR A, based on a meta-analysis.)

In 2004, a well-conducted systematic review of 35 trials compared multiple anesthesia techniques for infant males undergoing circumcision. In the review, 6 trials with 200 infants compared EMLA with placebo. EMLA was associated with significantly lower facial action scores. Crying time was decreased (weighted mean difference [WMD] –15.2%; 95% confidence interval [CI], –21 to –9.3) and heart rate was lower with the use of EMLA (WMD –15 bpm; 95% CI, –19 to –10). Two additional studies compared ring block with EMLA, and showed no statistical difference in heart rate changes or crying time.

Fourteen trials with 592 newborns showed DPNB also did better than no treatment or placebo. DPNB was associated with significantly lower heart rate (WMD –35 bpm; 95% CI, –41 to –30), decreased crying time (WMD –54%; 95% CI, –64 to –44), and better oxygen saturation (WMD 3.7%; 95% CI, 2.7 to 3.7). Two trials involving 127 newborns compared DPNB with sucrose. DPNB was associated with less time crying (mean difference of –166 s; 95% CI, –211 to –121) and lower heart rate (WMD –27 bpm; 95% CI, –33 to –20). Two other studies compared DPNB and ring block and found no statistically significant difference in heart rate changes or crying time.

So it would seem that EMLA, ring block, and DPNB might be equally effective, but in head-to-head comparisons this was not the result. Three studies involving a total of 139 patients compared DPNB head-to-head with EMLA. The studies looked at 2 different pain scales, change in heart rate, respiratory rate, and crying time. DPNB was associated with statistically significant lower pain scores and decrease in heartbeat (WMD –17 bpm; 95% CI, –23 to –11), but not in respiratory rate or time crying.

A major limitation in studying pain control during circumcision is the difference in physician technique, including type of clamp used. The time to wait after injection or application of anesthetic may also vary. In addition, pain is a subjective finding and even in neonates there is interpretation made by the observer on any rating scale.

The American Academy of Pediatrics policy statement concludes, “if a decision for circumcision is made, procedural analgesia should be provided.” The information in this HelpDesk Answer is an update to the February 2004 Clinical Inquiry based on 1 systematic review and 1 randomized control trial of EMLA, ring block, and DPNB. All of those studies were included in the more recent Cochrane review.

What interventions are effective for chronic recurrent yeast vaginitis?

Evidence-Based Answer

Long-term pulsed maintenance therapy with fluconazole is effective for reducing recurrence of symptomatic vulvovaginal candidiasis (VVC). (SOR B, based on a randomized controlled trial [RCT].) Evidence exists for using weekly pulses for up to 6 months, and a tapered pulse schedule up to 1 year.

A 2004 multicenter, prospective, double-blind RCT identified 422 women (mean age 34 years; 65% white, 25.6% black, 7.9% Hispanic or other) with culture-proven VVC. After induction with 3 doses of 150 mg fluconazole at 72-hour intervals, 387 women (92%) had clinical cure and at day 14 were randomized to receive either fluconazole 150 mg weekly or placebo for 6 months followed by 6 months of observation. Ultimately 373 (96% of responders) were included in the modified intention-to-treat analysis and 343 (89%) were included in the analysis of efficacy.