

Medline ® Abstracts for References 14-19 of 'Symptomatic relief of sore throat in children and adolescents'

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TI Effectiveness of oral dexamethasone in the treatment of moderate to severe pharyngitis in children.

AU Olympia RP; Khine H; Avner JR

SO Arch Pediatr Adolesc Med. 2005 Mar;159(3):278-82.

OBJECTIVE: To determine the effectiveness of a single dose of oral dexamethasone in reducing the pain associated with moderate to severe pharyngitis in pediatric patients. **DESIGN:** Prospective, randomized, double-blind, placebo-controlled clinical trial. **SETTING:** Large, urban pediatric emergency department between March 2002 and November 2003. **PATIENTS:** Children aged 5 to 18 years with moderate to severe pharyngitis (odynophagia or dysphagia, moderate to severe pharyngeal erythema or swelling, and a McGrath Facial Affective Scale score of 0.75 or higher [scale 0.0-1.0]). **INTERVENTIONS:** Study patients were randomly assigned to receive 1 dose of either oral dexamethasone suspension (0.6 mg/kg with a maximum of 10 mg) or placebo of the same volume. All participants were tested for group A beta-hemolytic streptococcal pharyngitis and treated accordingly. Daily telephone follow-up was conducted until complete resolution of sore throat. **MAIN OUTCOME MEASURES:** Primary outcome variables included hours to initial relief of sore throat and time to the complete resolution of pain. Secondary outcome variables included changes in the McGrath Facial Affective Scale score at 24 and 48 hours, persistence of associated symptoms, use of anti-inflammatory or antipyretic medication, and subsequent use of medical resources for dehydration or pain. **RESULTS:** A convenience sample of 150 patients was randomized to receive either dexamethasone (n = 75) or placebo (n = 75). Twenty-five patients were lost to follow-up, leaving 125 patients available for data analysis; 57 received dexamethasone and 68 received placebo. Patients who received dexamethasone reported earlier onset of pain relief (9.2 vs 18.2 hours; $P < .001$), fewer hours to complete resolution of sore throat (30.3 vs 43.8 hours; $P = .04$), and larger changes in the McGrath Facial Affective Scale score in the first 24 hours (-0.58 vs -0.43; $P = .002$). Children who tested negative for group A beta-hemolytic streptococci had greater pain relief with dexamethasone compared with placebo (onset of pain relief, 8.7 vs 24 hours; $P = .001$), less time to complete resolution of sore throat (37.9 vs 70.8 hours; $P = .006$), and greater changes in the McGrath Facial Affective Scale score in the first 24 hours (-0.50 vs -0.21; $P < .001$). **CONCLUSION:** Children with moderate to severe pharyngitis had earlier onset of pain relief and shorter duration of sore throat when given oral dexamethasone.

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PMID 15753273

15 [Access the full text of this referenced article](#)

TI Dexamethasone as adjuvant therapy for severe acute pharyngitis.

AU O'Brien JF; Meade JL; Falk JL

SO Ann Emerg Med. 1993 Feb;22(2):212-5.

STUDY OBJECTIVE: To determine the efficacy of dexamethasone as adjuvant therapy to improve pain relief in patients with severe, acute exudative pharyngitis. **DESIGN:** Prospective, randomized, double-blinded, placebo-controlled clinical trial. **SETTING:** Large, urban community hospital emergency department with an emergency medicine residency program. **TYPE OF PARTICIPANTS:** Patients aged 12 to 65 years old with exudative pharyngitis and severe dysphagia/odynophagia. Patients with cancer, AIDS, diabetes mellitus, recent steroid use, pregnancy, or suspicion of peritonsillar abscess were excluded. **INTERVENTIONS:** All patients received oral penicillin (500 mg Pen VK) or erythromycin (333 mg base) three times daily for ten days in addition to either 10 mg single-dose dexamethasone or saline placebo IM injection. **MEASUREMENTS AND RESULTS:** Fifty-eight patients graded their initial degree of throat pain on a visual-analog scale that was 15 cm long and scored from 0 to 3.0 in 0.5-cm increments. Follow-up was obtained on 51 patients to determine their condition at 24 hours. At entry, there was no difference in age, weight, antibiotic assignment, or initial pain score between groups. Improvement in pain score (initial versus 24 hours) was 1.8 +/- 0.8 in the 26 patients of the dexamethasone group and 1.2 +/- 0.9 in the 25 patients of the placebo group ($P < .05$). Time to onset of pain relief was also faster in steroid-treated patients who demonstrated relief beginning at 6.3 +/- 5.3 hours, compared with 12.4 +/- 8.5 hours in the placebo group ($P < .01$). Of the 26 patients evaluated at seven days (13 in each group), time to complete lack of pain averaged 15.0 +/- 11.4 hours in the dexamethasone group and 35.4 +/- 17.9 hours in the placebo group ($P < .02$). Complications attributable to dexamethasone were not observed. **CONCLUSION:** In patients with severe, acute exudative pharyngitis, single-injection dexamethasone adjuvant compared with placebo resulted in statistically and clinically significant improvement, as evidenced by more rapid onset and greater degree of pain relief.

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PMID 8427434

16 [Access the full text of this referenced article](#)

TI Oral dexamethasone for the treatment of pain in children with acute pharyngitis: a randomized, double-blind, placebo-controlled trial.

AU Bulloch B; Kabani A; Tenenbein M

SO Ann Emerg Med. 2003 May; 41(5):601-8.

STUDY OBJECTIVE: We compare oral dexamethasone with placebo for the relief of pain in children with acute pharyngitis. **METHODS:** We performed a prospective, randomized, double-blind, placebo-controlled trial of children aged 5 to 16 years who presented to the emergency department with acute pharyngitis. Children rated their pain on a standardized color analog scale and had a rapid streptococcal antigen detection test performed to determine group assignment. Children were randomized to dexamethasone (0.6 mg/kg, maximum dose 10 mg) or placebo. Blinded research assistants called all families daily to determine pain scores until the point of complete pain relief. The primary outcome measures were the time to clinically significant pain relief and the time to complete pain relief. **RESULTS:** A total of 184 children were enrolled in the study. There were 85 children in the antigen-positive group, of whom 45 were randomized to dexamethasone and 40 to placebo. In children with group A beta-hemolytic streptococcal pharyngitis, the median time to clinically significant pain relief was 6 hours in the dexamethasone group versus 11.5 hours in the placebo group ($P = .02$; effect size of 5.5 hours with 95% confidence interval [CI] of 1.0 and 10.0 hours), and the time to complete pain relief was similar (36 hours for placebo versus 40 hours for dexamethasone, $P = .86$; effect size of 4.0 hours with 95% CI of -9.3 and 17.3 hours) in the placebo group. There were 99 children enrolled in the antigen-negative group, of whom 47 received dexamethasone and 52 received placebo. In this group, the median time to clinically significant pain relief was 13 hours in the dexamethasone group versus 9 hours in the placebo group ($P = .32$; effect size of 4 hours with 95% CI of -2 and 10 hours), and the time to complete pain relief was similar (48 hours for placebo versus 50 hours for dexamethasone, $P = .61$; effect size of 2 hours with 95% CI of -11.8 and 15.8 hours). **CONCLUSION:** For all children with acute pharyngitis, oral dexamethasone does not decrease the time to onset of clinically significant pain relief or time

to complete pain relief. However, in the subset of children with positive antigen detection test results, there is a statistically significant improvement in time to onset of pain relief, but it is of marginal clinical importance.

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17 [Access the full text of this referenced article](#)

TI A randomized clinical trial of oral versus intramuscular delivery of steroids in acute exudative pharyngitis.

AU Marvez-Valls EG; Stuckey A; Ernst AA

SO Acad Emerg Med. 2002 Jan;9(1):9-14.

Previous study has shown that the use of intramuscular (IM) steroid leads to improved symptoms in patients with group A beta-hemolytic streptococcus (GABHS). OBJECTIVE: To compare oral with IM steroids as an adjunct to antibiotic therapy in the treatment of acute exudative pharyngitis. The null hypothesis was that there would be no difference in effectiveness of oral versus IM steroids. METHODS: The study was a randomized, double-blind outpatient clinical trial. After consent was obtained, each patient was asked to rate his or her pain on a 10-cm numbered visual analog scale (VAS; 0-10). All of the patients received injectable benzathine penicillin or, if allergic to penicillin, a ten-day course of polyenteric-coated erythromycin. Each patient was randomized to receive either injectable steroid plus oral placebo or injectable placebo plus oral steroid. All medications were given in the emergency department. All patients were contacted by telephone at 24 hours (first follow-up) and 48 hours (second follow-up) by one of the study investigators and asked to rate their pain based on another VAS. If their pain was not resolved by 48 hours, they were called again daily for the third to seventh day after the initial visit. The time to total resolution of the sore throat was documented. The main outcome measures were time to complete relief of pain and VAS scores. Pain medication was not controlled; however, use of pain medications and amounts were recorded. RESULTS: A total of 78 patients were initially enrolled in the study. Eight patients were excluded from the statistical analysis because of inability to follow up. A total of 70 were entered, with 35 randomized to IM steroid plus oral placebo and 35 to IM placebo plus oral steroid. There was no difference in pain scores for the oral versus IM group at first follow-up ($p = 0.13$) and second follow-up ($p = 0.82$), and in number of hours to relief of pain ($p = 0.06$). Using repeated-measures analysis of variance, no difference in the effects of the two medications over time was detected ($p = 0.83$). CONCLUSIONS: The results of this clinical trial suggest that oral steroid and IM steroid provide similar levels of pain relief in acute exudative pharyngitis.

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PMID 11772663

18 [Access the full text of this referenced article](#)

TI Dexamethasone for the treatment of sore throat in children with suspected infectious mononucleosis: a randomized, double-blind, placebo-controlled, clinical trial.

AU Roy M; Bailey B; Amre DK; Girodias JB; Bussieres JF; Gaudreault P

SO Arch Pediatr Adolesc Med. 2004 Mar;158(3):250-4.

OBJECTIVE: To evaluate the efficacy of a single oral dose of dexamethasone for pain relief in acute exudative pharyngitis associated with infectious mononucleosis. METHODS: We conducted a randomized, double-blind, placebo-controlled pediatric emergency

department-based clinical trial. Patients aged between 8 and 18 years with a sore throat from clinically suspected infectious mononucleosis were eligible. Patients were randomized to receive either an oral dose of 0.3 mg/kg (maximum, 15 mg) of dexamethasone or a placebo. Patients completed a diary of symptoms and rated their pain on a visual analog scale from 0 to 100 mm at 0 hours, 12 hours, 24 hours, 48 hours, 72 hours, and on day 7. An improvement of 20 mm from baseline on the visual analog scale was evaluated as the primary end point. RESULTS: Twenty patients were recruited in each group; mean +/- SD age was 13.5 +/- 2.8 years. In comparison with the placebo group, a significantly greater proportion of patients given dexamethasone achieved pain relief within the first 12 hours (12/20 vs 5/19; P = .03). On further follow-up, the proportions achieving pain relief were similar between groups: 11 of 20 vs 6 of 20 at 24 hours (P = .10); 11 of 20 vs 11 of 20 at 48 hours (P > .99); 15 of 20 vs 15 of 19 at 72 hours (P = .93); and 18 of 19 vs 19 of 20 at day 7 (P > .99), with dexamethasone vs placebo, respectively. CONCLUSIONS: The short-lived relief of pain in acute exudative pharyngitis in children with suspected infectious mononucleosis may suggest that a single oral dose of dexamethasone may not be sufficient and that additional doses may be necessary for ensuring lasting relief.

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PMID 14993084

19 [Access the full text of this referenced article](#)

TI A pilot study of 1 versus 3 days of dexamethasone as add-on therapy in children with streptococcal pharyngitis.

AU Niland ML; Bonsu BK; Nuss KE; Goodman DG

SO Pediatr Infect Dis J. 2006 Jun;25(6):477-81.

BACKGROUND: Studies in adults, but not in children, have shown a beneficial effect of one dose of steroid on the severity and duration of throat pain in acute pharyngitis. The effectiveness of longer steroid treatment has not been evaluated in children. METHODS: We performed a randomized, double-blind, 3-arm, placebo-controlled trial to estimate the effectiveness of one dose versus 3 daily doses of oral dexamethasone in the treatment of 4- to 21-year-old patients with group A beta-hemolytic streptococcal (GABHS) pharyngitis. Participants used the Wong-Baker FACES scale to rate their symptoms at enrollment and twice daily for 5 days. Patient-completed diaries and telephone interviews provided follow-up data. Primary end points-severity of throat pain, improvement in general condition and improvement in activity level-were evaluated by survival analysis. RESULTS: Ninety patients were enrolled. For each end point, we rejected the null hypothesis of a common survival experience for the 3 study arms. With the exception of 2 days for throat pain in participants receiving one dose of dexamethasone, the median time to improvement for all end points was 1 day for both arms of dexamethasone and 2 days for placebo. There was no difference between study arms in return to a clinical setting for symptoms related to GABHS pharyngitis or absenteeism from work/school. No patient experienced complications related to GABHS pharyngitis in the 30 days after enrollment. CONCLUSIONS: In this pilot study, children with GABHS pharyngitis who receive dexamethasone as add-on therapy have a more rapid improvement in general condition and level of activity and, for those receiving 3 daily doses of dexamethasone, in resolution of throat pain.

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