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P: In patients with acute pharyngitis

I: Does the use of corticosteroids

C: Compared to standard therapy alone

O: Improve healing time or symptom resolution

Search Strategies: Pub Med, Cochrane Database, National Guideline Clearinghouse

Relevant Papers:

Date/Study Name	Study Type	Pt Group	Results	Conclusions	Weaknesses
<p>Ann Emerg Med. 1993 Feb;22(2):212-5. Dexamethasone as adjuvant therapy for severe acute pharyngitis.</p>	<p>Randomized double blind PCT All pt's got PO Pen-VK or Ery base (given 10 days of samples) and either saline injection or 10mg dexamethasone IM mixed in pharmacy</p>	<p>All pt's age 12-65 (avg 25.7, 27.1) with exudative pharyngitis, severe dysphagia/odynophagia and fever or cervical LAD who came to ED from 11/90-3/91. Exclusions: cancer, AIDS, DM, recent steroid use, pregnancy, or suspicion for PTA.</p>	<p>58 pt's enrolled 31 in steroid group 27 to control. Groups balanced by age, weight, sex, initial pain score. 24 hour f/u on 26 steroid group (83%) and 25 control (92%) -24 hour pain score 0.8±0.8 vs 1.3±0.9 p<0.05 -time to pain onset pain relief (hrs) 6.3±5.3 vs 12.4±8.5 p<0.01 7 day f/u on 13 of each group. -Time to complete lack of pain 15±11.4 vs 35.4±17.9 p<0.02</p>	<p>People feel better faster with steroids, avg of 20 hours. No complications observed but admittedly small study.</p>	<p>Large number of pt's lost to F/U Does not quantify what "recent steroid use" is F/U at 7 days leaves open possibility for recall error The others state 10-30% of pharyngitis in adolescents and adults strep, but all pt's got abx and no cx done. Leaves question open what happens if give give steroids and not abx (what if pt had bacterial and was missed)</p>
<p>Acad Emerg Med. 1998 Jun;5(6):567-72. The role of betamethasone in the treatment of acute exudative pharyngitis.</p>	<p>Randomized double blind PCT All pt's received Bicillin shot or ERY PO if allergic and either saline or betamethasone mixed at nursing station (physician blinded, nurse not)</p>	<p>All pt's age 14-65 (avg 28.5, 29.8) with exudative pharyngitis, dysphagia/odynophagia (of any intensity) and fever or cervical LAD who came to ED from 9/95-12/95. Exclusions: AIDS, immunocompromised state, thrush, DM, steroid use in last 3 months, ulcerative pharyngitis, pharyngitis without exudates, prior allergic reaction to steroid use, ETOH or Drug use limiting ability to consent, no phone, pregnancy, or PTA.</p>	<p>92 participants 46 in each group. 8 lost to f/u F/U obtained at 24 hour intervals by phone until pt pain free. 50% of pts reminded what they rated pain initially Pain decrease at 24 hours: st 5.5, c 3.9 (p0.004) Time to start of pain relief: st 6.3h, c11.3(p0.0047) Time to complete relief: st 42, c 55.8 84% of pt's got throat cx, 49 were + (53%), 20 in steroids, 29 in placebo CX neg #: s19, c 9 -No sig differences in pain scores, not powered to look though CX pos #: s20, c29 -Larger differences in pain scores</p>	<p>As adjunctive to abx, betamethasone lessens time to pain relief in acute exudative pharyngitis, most effective if strep+</p>	<p>Did not control for pain medication use (none given but rec Tylenol and Motrin but did not ask if used) Small study size Scale not seen by pt on f/u despite 10cm visual analog scale used initially. Cx not gotten for all pt's (15 pt's no cx (s7,c8) no diff in initial pain scores PCN vs ERY</p>

<p>Laryngoscope. 2002 Jan;112(1):87-93. Efficacy of single-dose dexamethasone as adjuvant therapy for acute pharyngitis.</p>	<p>Randomized double blind PCT</p> <p>All pt's received oral abx (Pen VK or Ery), got a throat cx, and either got placebo or 10mg IM dexamethasone or 10mg PO.</p> <p>Pt's also instructed to use Tylenol and were given 6 doses.</p> <p>Designed to look at injection site complications and development of PTA</p>	<p>Convenience sample of pt's >15 y/o presenting with sore throat, odynophagia, dysphagia or combo of these who had clinical dx of acute tonsillitis or pharyngitis with or w/o exudates from Aug 98 – July 00.</p> <p>Exclusion: immunosuppression, DM, HIV, h/o head and neck CA, steroid use < 3mo, tonsillectomy in last 3 months, return for same complaint but not previously in study, suspected PTA, no phone, admitted</p>	<p>120 Pt's enrolled 2 lost to f/u. 39 IM dex, 42 PO, 37 Placebo. No sig diff in pt's.</p> <p>F/u at 12 and 24 hours with pain scale, activity, analgesic use....</p> <p>Statistically sig difference in pain in subset that had pathogen ID'd</p> <p>No sig diff change in pain in subset that had no pathogen ID'd (PO had sig effect on decreasing pain in non bact pharyngitis, but not IM)</p> <p>Bacterial pathogens ID in 33% of IM, 40% of PO and 43 % of placebo. Of pathogens recovered about 2/3 B hemolytic strep.</p> <p>9 Pt's returned within 5 days for further tx, 3 in PO group, 6 in placebo none in IM group. Diff between placebo and IM 16.2% (p0.032). None had PTA. No abscesses noted</p>	<p>1. Dex as adjunct, safe, well tolerated</p> <p>2. Dex 10mg PO or IM sig decreases pain and return to normal</p> <p>3. Dex more effective when bact</p> <p>4. Routinely prescribing 10mg dex with abx would sig enhance recovery and decrease hosp due to dehydration and intolerance to oral intake in Pt's >15 y/o</p>	<p>Many q's unanswered still</p> <p>Convenience sample</p>
<p>Ann Emerg Med. 2003 May;41(5):601-8. Oral dexamethasone for the treatment of pain in children with acute pharyngitis: a randomized, double-blind, placebo-controlled trial</p>	<p>Randomized double blind PCT</p> <p>Pt's all got rapid antigen test. If pos got oral Pen VK. Then got either placebo or PO dexamethasone (0.6mg/kg)</p> <p>Parents encouraged to use oral analgesics</p>	<p>All kids 5-16 y/o with sore throat, odynophagia, dysphagia. All consecutive children attempted to be enrolled but not possible.</p> <p>Exclusion: immunocomp, exposure to varicella, PTA or retropharyngeal abscess, steroids <2mo, preg, no phone, on abx.</p> <p>Used 10cm color analog scale</p>	<p>318 pt assessed, 42 excluded, 34 refused, 58 missed. 184 enrolled, 85 with GABHS (45s, 40c) 99 without GABHS (47s, 52c). 1 pt from each of the 4 groups lost to f/u.</p> <p>F/u at 24 hours, 48 hours, and 1 month.</p> <p>Dex resulted in stat sig decrease in time to pain relief (6hours vs 11.5 p0.02) but not to resolution (1.5 days), only in GABHS.</p> <p>At 1 month f/u no sig complications</p> <p>Recurrent pharyngitis in 9 kids (4s, 5c)</p>	<p>For all kids with acute pharyngitis, oral dex does not decrease pain. If bacterial there is a stat sig improvement but or marginal clinical importance.</p>	<p>Recall bias</p> <p>Most pt's complained of mod pain, may be more benefit if severe pain</p>
<p>Arch Pediatr Adolesc Med. 2005 Mar;159(3):278-82. Effectiveness of oral dexamethasone in the treatment of moderate to severe pharyngitis in children.</p>	<p>Randomized double blind PCT</p> <p>Pt all got rapid strep and treated with IM PCN if pos then got either placebo or PO dexamethasone (0.6mg/kg)</p> <p>Parents encouraged to use oral analgesics</p> <p>Given facial scale to take home.</p>	<p>5-18 y/o with with mod – sev pharyngitis (facial affective score or >0.75 on scale of 0-1)</p> <p>Exclusion: immunocomp, exposure to varicella, PTA or retropharyngeal abscess, steroids <1wk, preg, no phone, on abx.</p>	<p>Convenience sample of 150. 7 excluded due to improper data collection. 79 with GABHS (33s {6 lost}, 46c {3 lost}) 84 without GAHBS (37s {7 lost}, 27c {2 lost}).</p> <p>F/u at 24 hours, 48 hours</p> <p>5 hosp (3s, 2 c) due to dehydration. 3 PTA (1s, 2c)</p> <p>GABHS sig diff in onset to pain relief (diff 5 hours). But no sig decrease in pain score in first 24 hours or time to resolution.</p> <p>In non-GABHS sig diff in onset to pain relief (diff 15.3 hours), time to complete relief (32 hours diff), and in change of pain score (diff of .29) (Attrib diff to use in sever pt's only)</p>	<p>Children with mod-severe pharyngitis had earlier onset of pain relief and shorter duration of sx with oral dex.</p>	<p>Recent steroid use threshold much lower then other studies.</p> <p>Convenience sample</p> <p>Large # lost to f/u</p>

<p>Br J Gen Pract. 2005 Mar;55(512):218-21. Adjuvant prednisone therapy in pharyngitis: a randomised controlled trial from general practice.</p>	<p>Randomized double blind PCT in Israel GP office</p> <p>All pt's abx given at discretion of Dr. but stopped if ex neg. PT got placebo or 60 mg prednisone for 1 or 2 days</p> <p>Analgesic use permitted but not controlled</p>	<p>18-65 y/o with severe sore throat and at least 2/4 exudate, dysphagia, fever, LAD.</p> <p>Exclusions: preg, on steroids, CA, immunocomp, DM, PTA</p>	<p>80 eligible, 1 refused</p> <p>F/U at 12, 24, 48 and 72 hours obtained from all pt's.</p> <p>92% cx and 57% of those pos for strep.</p> <p>Prednisone group with sig diff of pain score at 12 and 24 hours, but lost at 36 hours. Time to resolution of pain sig diff in prednisone group vs placebo (57 vs 33 % pain free at 48hours)</p>	<p>Short acting oral steroid therapy effective for shortening throat pain duration in acute pharyngitis.</p>	<p>GP office vs ED pt pop.</p> <p>Analgesic use permitted but not controlled</p> <p>No standard to abx use</p> <p>1 vs 2 day prednisone dosing not clearly separated in data charts</p> <p>Data divided at strict intervals</p> <p>Large % strep pos</p>
<p>2006. A pilot study of 1 versus 3 days of dexamethasone as add-on therapy in children with streptococcal pharyngitis.</p>	<p>Randomized double blind PCT, 3 arms to look at one dose vs 3 days of oral dex</p> <p>Oral or IM abx per Dr.</p>	<p>Convenience sample of 4-21 y/o with pos strep antigen test</p> <p>Exclusions: immune problems, DM, CA, PUD, HTN, active herpes or varicella infections, exposure to varicella in last 21 days, tonsillitis in last 1 month, steroids in last 3 mo, dehydration, preg, breast feeding, 5 episodes of emesis in last 24 hours, vomiting 2 doses of study drug in ED, no phone.</p>	<p>90 pt's enrolled 45 got PO and 45 got IM abx. Within each group 15 each got one of the 3 arms. 6 pt's lost to f/u.</p> <p>F/u BID x 5 days with journals and phone calls multiple data points collected.</p> <p>Single dose dex led to sig improvements in general condition and activity</p> <p>No relapses.</p> <p>No diff between groups in analgesic use.</p>	<p>In children with GABHS who receive dex as add on therapy have more rapid improvements in general condition and level of activity, and throat pain if got 3 days of dex</p>	<p>Convenience sample</p> <p>.Further studies needed to look into eradication of strep from throat with steroid use.</p>

Clinical Bottom Line:

- Though this issue remains controversial, in both adults and in pediatric patients the current evidence suggests that there is probably a role for the use of steroids in the treatment of patients with severe sore throat if exclusions are made for pt's that are immunosuppressed, have CA, DM, active herpes/varicella, PTA, PUD, etc...
- No complications such as increased rate of PTA have been noted with steroid use, though at this point there is no data that shows if the rate of bacterial clearance is effected by the use of steroids.
- In all of the studies all pt's received steroids as adjunctive therapy to antibiotics. This is important to note as there is no data that shows the effects of steroids in pt's with missed bacterial pharyngitis.
- In the adult population of patients with severe pharyngitis providing a single dose of oral steroids may significantly improve pt's pain, and decrease the time to resolution of symptoms particularly if they have a bacterial etiology for there sx.
- In the pediatric population more research is likely needed, however based on the 2005 and 2006 studies it appears that a single dose of 0.6mg/kg (up to 10mg) of PO dexamethasone may significantly improve sx in patients that either have a severe viral pharyngitis or a bacterial pharyngitis as adjunctive therapy to antibiotics.
- **Ultimate bottom line: My recommendation would be to use what ever clinical decision tree you are currently using to determine if you are going to provide a patient with antibiotics for their sore throat. If you decide to provide abx, and there is no other contraindication to doing so, I would also give a single dose of PO steroids as above.**

References:

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