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PRESCRIPTION COMPOUNDING FOR

DENTAL MEDICINE

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P O S T O P E R A T I V E  P A I N

The following study suggests that low dose ketoprofen is effective in treating certain types of postoperative dental pain - “Pharmacokinetics and efficacy of low-dose ketoprofen in postoperative dental pain” (Clin Drug Investig. 1998;15(4):279-84).

ABSTRACT: “A double-blind, randomised trial was carried out to investigate the relationship between efficacy and various pharmacokinetic variables after single doses of racemic ketoprofen 12.5 and 25mg in patients with postoperative pain after third molar surgery over a 4-hour investigation period. Serial venous blood samples were obtained at 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3 and 4 hours after administration for subsequent determination of R(−) and S(+) ketoprofen. The relationship between the R(−) and S(+) ketoprofen concentrations and pain experience was summarised for each patient by the slope of the regression line for that individual. There was no significant difference (p > 0.05) between the two doses of ketoprofen for any of the efficacy measures. Peak plasma concentrations of both R(−) and S(+) ketoprofen were observed between 60 and 90 minutes after dosage. A significant negative correlation (p < 0.002) was observed between the decrease in pain scores and plasma concentrations of both R(−) and S(+) ketoprofen after each dose. However, the amount of variability in each patient’s response makes it difficult to identify a causal relationship between these parameters. Low doses of ketoprofen provide satisfactory pain relief in the early postoperative period after third molar surgery. Efficacy of this analgesic does not appear to be dose related or directly related to plasma concentrations of either R(−) or S(+) enantiomers.” PMID: 18370482

This study evaluates lidocaine as a single local anesthetic - “Comparison of 1% and 2% lidocaine hydrochloride used as single local anesthetic: effect on postoperative pain course after oral soft tissue surgery” (Methods Find Exp Clin Pharmacol. 1999 Sep;21(7):505-10).

ABSTRACT: “It is known that some local anesthetics may cause pain when the initial local anesthetic effect disappears. The aim of this trial was to compare the postoperative pain intensities after infiltration of plain lidocaine 1% and 2% used in gingivectomies. The trial was done as a controlled, randomized, double-blind, parallel group study involving 117 patients with mean age 48 years (range 29-71 years) allocated to two treatment groups. There was no statistically significant difference between the mean postoperative pain courses of lidocaine 1% and 2% after gingivectomies during an 11-h observation period. A numerical difference was seen from 7 to 11 h in favor of lidocaine 1%. There were more patients experiencing no pain, but more patients reporting higher pain scores in the lidocaine 2% group than in the lidocaine 1% group. These differences were not statistically significant. It can be concluded that there is apparently no difference between lidocaine 1% and 2% with respect to postoperative pain experience when using gingivectomy as a pain model.” PMID: 10544396

With our state of the art compounding lab, pharmaceutical knowledge and experience, we can compounded ketoprofen and lidocaine into an oral adhesive paste that can be applied directly to the site of pain. This may be a suitable alternative for patients who are not able to take/tolerate oral NSAIDs.

An example of how you might prescribe follows:

<table>
<thead>
<tr>
<th>COMPOUNDED MEDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ketoprofen 2% / Lidocaine 2% Oral Adhesive Paste</td>
</tr>
<tr>
<td>15gm</td>
</tr>
<tr>
<td>Apply TID</td>
</tr>
</tbody>
</table>
CANKER SORES

“Magic mouthwash” is commonly prescribed for conditions such as chemotherapy/radiation induced mucositis, canker sores, mouth pain, etc. The following information can be found in PHARMACIST’S LETTER / PRESCRIBER’S LETTER July 2007 ~ Volume 23 ~ Number 230703.

“There are numerous magic mouthwash formulations. Most contain at least three ingredients. Concoctions may contain a combination of an antibiotic (to reduce the bacterial flora around the lesion), antihistamine (for local anesthetic effect), antifungal (to stop any fungal growth), steroid (to reduce inflammation), a local anesthetic/pain reliever, or an antacid (to enhance coating of the ingredients on the mouth). The most popular formulation includes topical anesthetics such as lidocaine viscous and diphenhydramine plus Maalox (aluminum/ magnesium hydroxide) to enhance coating of the ingredients in the mouth. Other formulations include antifungals, corticosteroids, or antibiotics for infections or inflammations. Most of the formulations are used every four to six hours with instructions to hold in the mouth for one to two minutes then spit out or swallow. Patients should be instructed to shake the bottle well before using and not to eat or drink for 30 minutes after use.”

With our state of the art compounding facility and compounding experience we have the ability to compound several forms of “Magic Mouthwash”.

An example of how you might prescribe follows:

<table>
<thead>
<tr>
<th>COMPOUNDED MEDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nystatin 100,000 units/ml + Diphenhydramine 12.5mg/5ml + Maalox + Lidocaine Viscous 2% Mixed 1:1:1:1</td>
</tr>
<tr>
<td>Oral Rinse</td>
</tr>
<tr>
<td>240ml</td>
</tr>
<tr>
<td>Swish and spit q4-6hrs prn</td>
</tr>
</tbody>
</table>
The following study found tranexamic acid to be effective and well tolerated - "Prevention of postsurgical bleeding in oral surgery using tranexamic acid without dose modification of oral anticoagulants" (J Oral Maxillofac Surg. 1993 Nov;51(11):1211-6).

**ABSTRACT:** "The hemostatic effect of tranexamic acid solution (4.8%) used as a mouthwash was compared with a placebo solution in 93 patients on continuous, unchanged, oral anticoagulant treatment undergoing oral surgery. The investigation was a randomized, double-blind, placebo-controlled, multicenter study. Before suturing, the surgically treated region was irrigated with 10 mL of tranexamic acid (46 patients) or placebo (47 patients) solution. The patients then performed mouthwash with 10 mL of the solution for 2 minutes four times daily for 7 days. The treatment groups were comparable regarding age, smoking habits, and surgery. Laboratory variables measuring vitamin K-dependent coagulation factors were within therapeutic ranges (international normalized ratio 4.00 to 2.10). One of the clinics used a different method for these measurements and therefore the levels of coagulation factor X in plasma obtained for the three clinics were compared. No significant difference in the range at which surgery was performed was found between clinics. In the placebo group, 10 patients developed bleeding requiring treatment, while none of the patients treated with tranexamic acid solution had bleeding. This difference was statistically significant (P < .01). The treatment with mouthwash was well tolerated. It was concluded that patients on oral anticoagulants can undergo oral surgery within the therapeutic range without reducing the dosage of anticoagulants, provided that local antifibrinolytic treatment with tranexamic acid solution is instituted." PMID: 8229393

An example of how you might prescribe follows:

<table>
<thead>
<tr>
<th>COMPOUNDED MEDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tranexamic Acid 4.8%</strong></td>
</tr>
<tr>
<td><strong>Mouthwash</strong></td>
</tr>
<tr>
<td><strong>300ml</strong></td>
</tr>
<tr>
<td>Rinse and expectorate with 10ml up to 4x per day for one week</td>
</tr>
</tbody>
</table>

With our state of the art compounding lab, pharmaceutical knowledge and experience, we can compound tranexamic acid into an oral mouthwash.
Postoperative Pain

[ ] Ketoprofen 2% / Lidocaine 2% Oral Adhesive Paste
Quantity 15gm
Directions: Apply TID

Canker Sores

[ ] Nystatin 100,000 units/ml + Diphenhydramine 12.5mg/5ml + Maalox + Lidocaine Viscous 2% Mixed 1:1:1:1 Oral Rinse
Quantity 240ml
Directions: Swish and spit q4-6hrs prn

Postsurgical Bleeding

[ ] Tranexamic Acid 4.8% Mouthwash
Quantity 300ml
Directions: Rinse and expectorate with 10ml up to 4x per day for one week

All topical compound %s are per 1 ml or 1 gm unless otherwise noted

Directions

_________________________________________________________________________________________________________
_________________________________________________________________________________________________________

Prescriber’s Signature____________________________________   Refills:  1  2  3  4  5  6  7  8  9  10  11  12  NR

Patient will pick up at pharmacy   Please ship to patient

Bill Insurance Plan:_________________________________________  ID#________________________________

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