Metamizole and post operative analgesia: are the guidelines respected?

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Introduction

• Metamizole (MTZ) is widely used after surgery as an analgesic, antipyretic and spasmylytic drug.
• However complications such as agranulocytosis, anaphylactic choc and renal impairments have been reported. This medication has therefore been withdrawn in several countries because of those side effects.
• A recent study showed a 8 times increased of MTZ use within the last 10 years in Switzerland*. In our hospital, the Drug and Therapeutic Committee recommends to use MTZ only in the cases where no other option is possible and to use it no longer than 3 days.

Purpose

Analysis of MTZ prescription and administration in the 3 services main users and comparison with the use in other Swiss hospitals

Methods

Local observational study:
The medical records of all the patients discharged from the services of orthopedic surgery, traumatology and visceral surgery have been analysed over a 3-week period.
Data on duration of treatment, doses, frequency of use and way of administration of MTZ have been recorded as well as details on discharge prescriptions.

National survey
A survey has been sent to all Chief-Pharmacists of the Swiss hospitals in order to evaluate the practices in their institution.

Results

Local observational study

• In total, 303 patients’ files have been reviewed. Patients characteristics are presented in Table 1
• Patients’ distribution according to their operating status and prescription of MTZ is presented in Diagram 1.
• Durations of administration (shorter than 3 days or not) are presented in Figure 1
• The usual daily dose was 3 g/day and the MTZ was given orally in 94% of cases.
• 33% of patients who were prescribed MTZ during the hospital stay kept it on the discharge prescription.

Table 1: patients characteristics

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Median age (years)</th>
<th>Sex (F/M)</th>
<th>Patients operated</th>
<th>Mean length of stay (days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td>303</td>
<td>57 [16 – 93]</td>
<td>149 / 154</td>
<td>250 (83%)</td>
<td>8 [1 – 40]</td>
</tr>
<tr>
<td>CHV</td>
<td>115</td>
<td>57 [16 – 91]</td>
<td>56 / 59</td>
<td>90 (70%)</td>
<td>7 [1 – 39]</td>
</tr>
<tr>
<td>TRA</td>
<td>80</td>
<td>57 [20 – 93]</td>
<td>40 / 40</td>
<td>54 (68%)</td>
<td>10 [1 – 40]</td>
</tr>
<tr>
<td>OTP</td>
<td>108</td>
<td>58 [18 – 80]</td>
<td>53 / 55</td>
<td>156 (98%)</td>
<td>6 [1 – 31]</td>
</tr>
</tbody>
</table>

Diagram 1: operating status and MTZ use

National survey

• 28/47 hospitals answered our national survey.
• Among them, 95% were using MTZ frequently to very frequently.
• Guidelines aimed at limiting MTZ use were available in 43% of the hospitals.
• The 3 wards main users of MTZ are surgery, orthopaedic surgery and emergency.
• The 3 analgesics mainly used as alternative to MTZ are acetaminophen (paracetamol), ibuprofen and diclofenac.

Discussion - Conclusion

• MTZ is very frequently used as first line post surgery analgesic in the CHUV as in many other Swiss hospitals instead of other safer analgesics.
• Moreover, the duration of treatment is often (1/3 of prescriptions) longer than locally recommended.
• Publication of local guidelines does not seem to limit the prescription.
• Discussions have to be conducted with the prescribers in order to redefine the place of MTZ after surgery.