

Relevance of NSAIDs and the prevention strategies to gastrointestinal sides effects of NSAIDs

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Abstract

Objectives: Study the pharmacovigilence of NSAIDs

Purpose: NSAIDs side effects in gastro-intestinal tract , strategies applied in alleviation of these side effects, and development of new medical protocols.

Results: NSAIDs are medication known for anti-inflammatory, antipyretic, analgesic effect . Medications are widely used in high doses, especially in Balcan endemic diseases. Drugs digest in stomach causing numeric side effects as: heartburn, stomach pain, stomach ulcers, and inflammation in the intestine leading to perforacion, intestine stricture leading to chronic problems. Recognized three main mechanisms that prevent damage from NSAIDs , inhibition of COX-1 enzyme, increased membrane permeability, production of other proinflammatory mediators. For preventing this side effects are adopted some treatment protocols such as the combination of NSAIDs agent gastroprotective and the useage selective inhibitors of COX-2 .

Conclusion: The only thing easily manageable by doctors and pharmacist remains the medication dose, duration and dynamic tracking of patients .

Discussion: Work continues on introducing more medical protocol NSAIDs prodrugs that increase antioxidant activity, that release of nitric oxide and hydrogen sulphide ,causes gastroprotection.

KEYWORDS : NSAID, gastroprotective ,side effect , pharmacovigilence

Objective: Throught this study we want to put emphasis on how AIJS negatively affect the gastro-intestinal tract and how the doctor and pharmacist have to prevent syndromes of gastro-intestinal system.

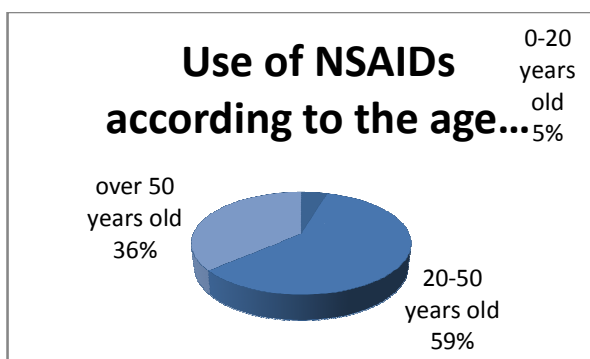
Material and methods :

This is a retrospective study that analyzes all patients presented for treatment at Hospital Ikeda, pharmaceutical prescriptions we executed in our pharmacy, as well as all the random patients (without referral from a doctor) who have received low-dose NSAIDs for a relatively short duration and , therefore selfmedication, during the period

September 2013 to March 2014. Besides recipes executed study in pharmacy we have also studied the medical records of patients who are treated in Ikeda Hospital and we have followed up the dynamics of patients who are treated at home leads by countercheck treating physician.

Results

In this study we have analyzed 687 patients classified in patients presented in our pharmacy treated for the first time with NSAIDs 60% (165 patients) and patients who are taking NSAIDs medication for second or various time in 40% (110 patients). It was noted that the patient group who have received treatment with NSAIDs for a relative prolonged period of time have shown gastro-intestinal syndrome to the extent of 45% (respectively 48.2 patients) as heartburn, stomach burning, epigastric pain, diarrhea, colon spasms, and hemorrhage. According patients age group who were treated with AIJS coincide be 4,45% by age 0-20 years (11 patients, respectively), 57.8% are 20-50 years old age group (159 patients) and 35.6% (98 patients) over 50 years old .



1. use of NSAIDs according of the groupage .

52.7 % of patient are female (145 patients) and 47.3 % are male (130 patients). It was noted that 26.5% of patients have been referred to have gastric problem and they doctor has prescript prevention treatment with antiacide.

In table 1 are described diagnoses associated with treatment of patients with NSAIDs where the extent of 33.5% against various inflammations who are being treated relatively well with an anti-inflammatory medicin (92 patients, respectively), 75 patients (27.3%) treated with NSAIDs for renal colic and 14% (39 patients) treated for rheumatismal pathology with high doses of NSAIDs and NSAIDs combined between them.

<i>Diagnosis and treatment</i>	<i>Variouse infections</i>	<i>Renal colic</i>	<i>Rheumatismal pathology</i>	<i>Post intervent</i>	<i>Whithout a medical prescription</i>
<i>No of patient</i>	92	75	39	24	45
<i>%</i>	33.5	27.3	14	8	16

Tab.1. Use of NSAIDs according of the pathology .

8% of the patient respectively 24 patients have been treated with NSAID to reduce post-operative pain .45 patients respectively 16.4% are random patient presented in our pharmacy without prescription who have received a small dose of AIJS.

Recommendations

Prodrugs are potential agents for increasing antioxidant activity, the release of nitric oxide and hydrogen sulphide.

Nitric oxide (NO) causes gastroprotection increasing blood circulation, mucus production, and secretion of bicarbonates in the gastric mucosa.

Hydrogen sulfide (H₂S) also exerts its effects and calms gastroprotective preexistent ulcers.

CONCLUSION: There is an urgent need to develop therapeutic agents to make use of NSAIDs safer. New measures of treatment such as dual inhibitors COX/5-LOX, prodrugs of NSAIDs or agents that can inhibit their negative effects, but help never thought that would reduce these effects in 100%.

"However, the only thing that is easily manageable by the treating physician as continuous patient remains their doses, described in the recipe."

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