Volume 07, Issue 03 (May-June 2024), PP 08-10 www.ijmsdr.org
ISSN: 2581-902X

International Journal of Medical Science and Dental Research

A Case Report On Drug-Food Interaction With Naproxen In A 17 Years Old Female Patient

GUNISETTI TEJASWINI, GOPARAJU KAVYA, BURRA LIKITHANJALI, TEJASWI CHILLARA*

I. HISTORY OF PRESENT ILLNESS :

A 17-year-old female was admitted to the emergency ward with chief complaints of swelling of both upper and lower lips, tongue swelling, giddiness, confusion, and rashes all over the body after eating food with brinjal potato curry. No significant food interaction was observed by her with this curry in the past. But after eating with the tab of naproxen 400mg she developed allergic reactions within 2 minutes. On admission, her BP was 90/50mmhg soon after her blood pressure was normalized to 110/70mmhg on the administration of Ringer lactate bolus by the doctor's advice. In the emergency department, she was treated with Inj. Avil IV stat, Inj. Hydrocortisone 100mg IV stat, patient symptoms were reduced and recovered within 2hrs.on laboratory findings, haemoglobin was found to be 8.5g% whereas RFT, LFT, CRP, and ESR were normal. on physical examination she was pallor. On day 2 her vitals were normal, with no fresh complaints, tab Orofer XT 200mgODand tab levocetirizine 10mg OD were added tothe treatment chart. On day 3 vitals were normal, the patient was hemodynamically stable and discharged with tab Orofer XT 200mg OD, and tab levocetirizine 10mg OD.

II. PAST MEDICAL HISTORY :

Known case of Hypothyroidism since 3 years on medication Tab.Thyronorm 50mcg OD

Known case of PCOS for 4 months currently not on medication.

Known case of migraine since 3 years on Tab Naproxen 400mg SOS.

III. MENSTRUAL HISTORY :

Age of menarche: 12 years

Menstrual cycle: irregular.

Menstrual cycle – 4-5 days/ 28-30 days.

FAMILY HISTORY :

No significant family history.

SOCIAL HISTORY :

Diet:Mixed diet

(consumes more junk food such as pizza, burger, shawarma, French fries, panipuri)

Sleep cycle:Adequate

Bowel and bladder: Normal

Body weight: 41kgs

ALLERGIES :

No known medicine, food,or environmental allergies.

PHYSICAL EXAMINATION :

VITALS :

DAY 1 -On examination patient was conscious and coherent, Temperature-100°F, Heart rate- 96bpm, Respiratory rate – 20/min, Blood pressure - 90/50mmhg.

DAY 2-Pt - C/C, Temperature - 98°F, Heart rate –88bpm, Respiratory rate -20/min, blood pressure – 110/80mmhg.

DAY 3 –Pt - C/C, Temperature - 98°F, Heart rate – 86bpm, Respiratory rate -18/min, blood pressure – 110/70mmhg.

IV. EXPECTED NAPROXEN FOOD INTERACTIONS ACCORDING TO THE PREVIOUS STUDIES [2]:

Naproxen + alcohol – the risk of stomach bleeding

Naproxen + grapefruit, caffeine, salty foods, high potassium containing food – risk of intestinal bleeding

Naproxen + milk – stomach irritation

PHARMACOLOGY :

DOSE: The initialnaproxen dose was 825mg followed by 550mg after 1 hour if not improved should be given in combination with 1000mg paracetamol + 10 mg metoclopramide.[4]

ADMINISTRATION: orally or topically

MOA: competitively blocks arachidonate binding thereby inhibiting both COX-1 and COX-2 isoenzymes which are catalysts of arachidonic acid to prostaglandin G. COX-1 isoenzyme is expressed in most tissues and joints of patients with RA or OA, in reaction to circulatory hormones COX-1 synthesizesprostaglandins and is involved in the maintenance of normal renal function, gastric mucosal integrity and hemostasis. While COX-2 is expressed in the brain, kidney, bones, and reproductive organs,Several cells can induce COX-2 in response to specific inflammatory mediators such as IL-1, TNF,and Lipopolysaccharide and thereby exhibit analgesic and anti-inflammatory effects.[1]

PK-Parameters :

Absorption – Upper GI

Metabolism – Liver

Elimination – 95% in urine

Half-life– 12-17hrs

INDICATIONS

Treat acute gout[3],ankylosing spondylitis, JIA, OA, RA, Pain, Primary dysmenorrhea, and migraine.[4]
Naproxen was considered as first-line treatment for acute migraine and also used to prevent chronic migraine along with other medications such as beta blockers, antidepressants, and anticonvulsants.

V. CONTRAINDICATIONS

Hypersensitivity to NSAIDs, NSAID-induced asthma, pregnancy, CABG.

ADVERSE EFFECTS

Dyspepsia, dizziness, elevated liver enzymes, increased BP, diminished renal function, rash, increased bleeding, GI ulcers.

TOXICITY– A large dose of naproxen can cause severe toxicity which results in seizures and metabolic acidosis which further increases the risk of renal failure.

CONCLUSION :

Throughour case report, we conclude that avoid brinjal and potato with naproxen. And maintain time intervalsbetween food and drug administration.

REFERENCE :

[1.] RabiaBushra, Nousheen Aslam, Arshad Yar KhanJournal List - Oman Med J - v.26(2); 2011 Mar PMC3191675
[2.] Lars E. Schmidt & Kim Dalhoff *Drugs* **volume 62**, pages1481–1502 (2002)
[3.] A Reappraisal of its Pharmacology, and Therapeutic Use in Rheumatic Diseases and Pain States -Peter A. Todd & Stephen P. Clissold -*Drugs* **volume 40**, pages91–137 (1990)
[4.] Naproxen sodium in the treatment of migraine ES Johnson, DM Ratcliffe, and M Wilkinson – March 1985.