

A REVIEW ON SAFETY AND EFFICACY OF OXACEPROL AS ANTI-INFLAMMATORY DRUG IN THE MANAGEMENT OF OSTEOARTHRITIS

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Article Received on
15 March 2020,
Revised on 05 April 2020,
Accepted on 26 April 2020
DOI: 10.20959/wjpr20205-16968

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ABSTRACT

Oxaceprol is commonly used for the treatment of Grade-I and II osteoarthritis of knees or degenerative joint disorders and inflammation of connective tissues and it is a derivative of L-proline which is a recognized drug in the management of osteoarthritis which comes under class of non-steroidal anti-inflammatory drugs (NSAIDs). Oxaceprol acts by inhibiting leukocyte infiltration in synovial joints and late connective tissue changes during inflammatory joint disease. Osteoarthritis is one of the forms of joint disease which signifies a key cause of morbidity and disability, chiefly in the second half of lifespan. Generally, the prescribed dose is 37.5 to 200 mg tablet. In case of administration of dose initially it is given in high dose strength which is decreased gradually with time.

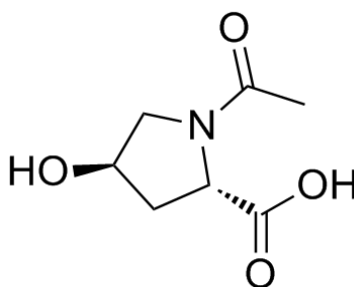
KEYWORDS: Oxaceprol, Osteoarthritis, Anti-inflammatory.

INTRODUCTION

The joint disorder related to the loss of articular cartilage causing pain and stiffness in the joints is termed as osteoarthritis. In case of osteoarthritis the pain sensation occurs after extended continuous activity and heaviness bearing; while stiffness can be seen whenever there is inactivity. This type of joint disorder usually shows its effects on the spine joints and the joints which are bearing heavy weights, it may include joints like knees and hips.

Osteoarthritis has become a most common joint disorder and most common cause of locomotor disability in elder people.^[1] Derivative of amino acid i.e. Oxaceprol, which is being used from decades in the treatment of degenerative and inflammatory joint disease in Europe. The mechanism of action of oxaceprol is different than other Non-steroidal Anti-Inflammatory Drugs, oxaceprol prevents the leukocyte infiltration into joints rather than inhibiting of synthesis of prostaglandins.^[2,3&4]

Generic Name of Drug of Choice- Oxaceprol.



Structure

Indications- Oxaceprol drug is having anti-inflammatory pharmacological activity which is mainly used in the treatment of osteoarthritis/ disorders of joint and connective tissue inflammation. This drug mainly acts by reducing leukocyte accumulation in joints and thereby inhibits the inflammation.

Recommended dose for Oxaceprol

The standard recommended dose of the drug to be taken is 37.5- 200 for a tablet dosage form. The dose of the drug is high when given initially which is then reduced slowly as per frequency.

Precautions and Contraindications

- Consult physician if patient has undergone or going to do any surgery.
- In case of women's who are pregnant and lactating caution should be taken.
- For children's suffering from joint disorder and want to start this medication should firstly consult with the doctors to avoid any side effects.

Oxaceprol Side effects

- Rashes on the skin.
- Nervous System- Oxaceprol can cause side effects like dizziness and headache in consideration with central nervous system.
- Gastrointestinal System: Side effects on gastrointestinal system are as below-

Vomiting	Diarrhoea	Epigastric pain	Bloating
Abdominal Pain	Constipation	Indigestion	Nausea

- Precautions to be taken- Always avoid administration of high dose of the drug.

Possible drug interaction for oxaceprol-Oxaceprol shows drug interactions with the drugs having activities like anticoagulant, antihypertensive and drugs like lithium and methotrexate.^[5]

A Comparative study for Safety and Efficacy of Oxaceprol and Diacerein in Osteoarthritis of Knee Joints

This comparative study of oxaceprol and diacerein was carried out for a period of 04 months on 60 patients diagnosed as suffering from Osteoarthritis of knees. From the sixty patients, 04 patients were withdrawn from the treatment. 28 patients were kept on treatment of diacerein (50 mg b.i.d) and 28 patients received oxaceprol treatment with (200 mg t.i.d) of dose. All these patients were monitored on visual analogue scale (VAS). The visual analogue scale (VAS) is a horizontal line, typically 10 cm in length, anchored by textual descriptors and/or pictures at each end. An endpoint descriptor such as 'no pain' (a score of 0) is marked at the left end, and 'worst pain imaginable' or 'worst possible pain' (a score of 10) is marked at the right end. Another scale named lequesne scale is used in the comparative study. Lequesne scale used to assess the effectiveness therapeutic interventions. It is a measure of 3 different parameters (I) Pain or Discomfort, (II) Maximum Distance Walked and (III) Activities of Daily Living. Both the drug Diacerein and Oxaceprol, statistically found to reduce VAS and Lequesne scale individually, so both the drug individually effective in Osteoarthritis of knee joint.^[6]

Oxaceprol is a Well-Tolerated Therapy for Osteoarthritis with Efficacy Equivalent to Diclofenac

This study suggest that the therapeutic equivalence and safety of treatment for 21 days with 400 mg t.i.d. oxaceprol ($n = 132$) and 50 mg t.i.d. diclofenac ($n = 131$) were assessed in a multicentre, randomised, double-blind study of a diverse population of patients with

osteoarthritis of the knee and/or hip. In a per-protocol investigation of efficacy, the mean Lequesne index decreased by 2.5 points in the oxaceprol group ($n = 109$) and by 2.8 points in the diclofenac group ($n = 109$). The 95% confidence interval for the end-point difference discovered therapeutic equivalence. This was confirmed by assessments (visual analogue scale) of pain at rest, weight-bearing pain, pain on standing and pain on movement, all of which decreased to a similar level under both treatments. The pain-free walking time increased in both groups from 10 min to 25 min by the end of the treatment period. Mobility was also increased to a similar extent by both drugs. The physicians assessed treatment as good or very good in 45–46% of patients in both groups. In all patients who received treatment, 28 and 37 adverse events were reported by 25 out of 132 (18.9%) and 33 out of 131 (25.2%) patients treated with oxaceprol and diclofenac, respectively. In 15 patients (11.4%) with 15 adverse events in the oxaceprol group and 25 patients (19.1%) with 27 adverse events in the diclofenac group, a relation to the medication was considered probable. The difference between the groups was statistically significant ($p = 0.04106$) for the number of these adverse events. Oxaceprol is therapeutically equivalent to diclofenac, but better tolerated than diclofenac in the treatment of osteoarthritis.^[7]

CONCLUSION

Oxaceprol drug was found most effective in the treatment joint disorder like osteoarthritis in the standard recommended dose of the drug which should be taken is 37.5- 200 for a tablet dosage form. The dose of the drug should be kept high initially and it is then reduced slowly as per frequency for to get efficacy of the drug. The drug oxaceprol is found to be well tolerated than other Non-steroidal anti-inflammatory drugs in the osteoarthritis treatment.

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