Print ISSN: 2321-6379
Online ISSN: 2321-595X

Review Article

Diclofenac in Osteoarthritis Management: A Focus on Synovitis Treatment Strategies

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Abstract

The evolving landscape of osteoarthritis (OA) management focuses on the pivotal role of synovitis and the pharmacological efficacy of diclofenac. synovitis, once overlooked, is now recognized as a key contributor to OA symptoms and progression. Pharmacologically, diclofenac emerges as a cornerstone in OA treatment, showcasing superior effectiveness over aceclofenac and providing a promising option for patients with chronic kidney disease and the elderly. The comprehensive evaluation encompasses the mechanism of action, renal safety, and onset of action of diclofenac. This paper aims to guide clinicians toward evidence-based approaches for OA management, emphasizing the significance of synovitis and the therapeutic prowess of diclofenac.

Key words: Osteoarthritis, Synovitis, Diclofenac, Renal safety

INTRODUCTION

Osteoarthritis (OA) is a debilitating joint disease characterized by the breakdown of cartilage, the formation of osteophytes, subchondral bone sclerosis, and inflammation of the synovial membrane.[1-3] Despite being traditionally perceived as a non-inflammatory disorder, emerging evidence underscores the pivotal role of synovitis in OA pathophysiology, challenging the conventional classification.[1,2] Synovitis, characterized by inflammation of the synovial membrane, is increasingly recognized as a key factor in both the symptoms and structural progression of OA.[1,3] The prevalence of OA has surged globally, particularly among those aged 55 and older, emphasizes the urgent need for effective management and intervention strategies, considering the significant impact on the aging population, especially women.[4] While OA was once perceived as a wear-and-tear disease, the evolving understanding of its pathophysiology emphasizes the importance of synovitis, providing a potential target for both symptomatic relief and structural modification.[1,5]

Access this article online

www.ijss-sn.com

Month of Submission : 01-2024
Month of Peer Review : 02-2024
Month of Acceptance : 03-2024
Month of Publishing : 03-2024

ROLE OF SYNOVITIS IN OA

The synovium, a specialized tissue lining joints, undergoes significant changes in OA, marked by inflammation, leukocyte influx, and altered synoviocyte function.[3,5] Under normal conditions, the synovium maintains joint health by producing lubricin and hyaluronic acid [Figure 1]. In OA, however, histological shifts, including synovial lining hyperplasia and fibrosis, disrupt this equilibrium. Macrophages and T-cell lymphocytes become prominent, contributing to an inflammatory cascade.[3,5,6]

Synovitis is a phenomenon that occurs in both early and advance-stage OA, influencing clinical symptoms and structural changes. Imaging techniques reveal the patchy distribution of synovitis, correlating with pain and radiographic severity. [3,6] This newfound understanding positions synovitis as a potential therapeutic target in the management of OA.[5,6]

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COMBINATION THERAPY IS LESS EFFECTIVE THAN SINGLE NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAID) THERAPY? INDEED, LESS IS MORE

Pharmacological management of OA prioritizes pain relief, function enhancement, and quality of life improvements through both pharmacological and non-pharmacological approaches. Guidelines also emphasise NSAIDs as first-line therapy for symptomatic pain in musculoskeletal disorders, notably in OA.[7]

Despite its central analgesic properties, paracetamol proves less effective than NSAIDs for inflammatory pain and inferior to opioids in central analgesic efficacy.[7] A meta-analysis by da Costa *et al.* also confirms its null effect on OA pain relief, contrasting with the significant efficacy of diclofenac, particularly across various doses.[8] Combination therapies such as serratiopeptidase and NSAIDs have lesser analgesic and anti-inflammatory effects compared to NSAIDs used alone with serratiopeptidase, causing potential harm to joint cartilage and synovial tissue.[9]

Considering the above pieces of evidence, it can be concluded that in the pharmacological management of OA, single therapy, particularly diclofenac, could prove to be more effective than combination therapy approaches.

DICLOFENAC IN THE TREATMENT OF OA

Diclofenac stands out in OA treatment, effectively reducing pain and improving physical function.[10] Studies have also highlighted its remarkable potency, being 3–1000 times more effective than other NSAIDs.[11] Research published in the British Medical Journal supports its efficacy, especially as a potentially safer first-line pharmacological treatment for knee OA.[12] Another study by Rohekar G and Bookman A, emphasizes effective analgesic benefits and tolerability of diclofenac in OA patients.[13]

Beyond its general efficacy, diclofenac shows unique pharmacokinetics in synovial fluid, peaking 2–4 h post-administration with a longer elimination half-life, which underscores its relevance in treating OA at the synovial level [Figure 2].[14,15]

Therefore, diclofenac has been proven effective for managing symptoms of OA among other NSAIDs.[14] In addition, the relative efficacy of diclofenac at the most routinely used doses in the number needed to manage acute pain number needed to treat (NNT) for all NSAIDs and COX-2 inhibitors ranged between 1.6 and 3.0 (depending on dose). The predicted values for diclofenac are 1.9, 2.3, and 2.8 for 100 mg, 50 mg, and 25 mg in a single dose.[16] Therefore, it is a better choice for managing pain.

Table 1: Comparison of diclofenac and aceclofenac

Aspect	Diclofenac	Aceclofenac
Penetration ratio: Synovial fluid/Plasma	81%[17] (24% higher)	57%[18]
Peak plasma concentration	1.5 to 2.5 hrs[19]	1.5 to 3 hrs[18]
Effectiveness in OA Management	≥99% probability for treatment effectiveness[12]	Probability of 95.1% for treatment effectiveness[12]
Half-life	2 hrs[20]	4 hrs[18]
Renal excretion	Approximately 60% of the dose[14]	Approximately 75% of the dose[16]

OA: Osteoarthritis

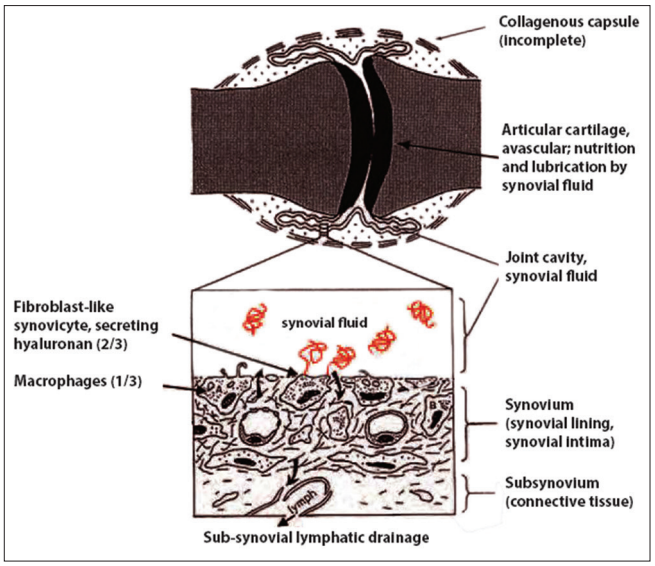

Figure 1: Structure of synovial joint and synovium

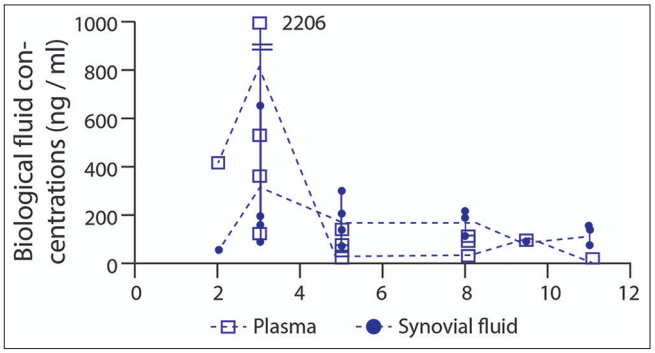

Figure 2: Plasma and synovial fluid concentrations (ng/mL) of diclofenac in osteoarthritis patients[15]

COMPARISON OF DICLOFENAC AND ACECLOFENAC IN OA MANAGEMENT

In the comparison between diclofenac and aceclofenac for the management of OA [Table 1], diclofenac positions itself as an effective and well-tolerated treatment option for OA management.[21]

DICLOFENAC AND RENAL SAFETY IN CHRONIC KIDNEY DISEASE (CKD) PATIENTS

In addressing CKD-related pain and inflammation, careful consideration of NSAID renal safety is crucial.[22] Diclofenac, an NSAID, stands out as a viable option for mild to moderate CKD due to its well-tolerated profile, especially when used at the lowest effective dose for a short duration.[20] Recent studies highlight its tolerability in this population, attributed to its rapid onset of action, potent COX-2 inhibition, and reduced renal burden. The shorter half-life, metabolism, and elimination contribute to the potential of diclofenac as an alternative for CKD patients, particularly those with an eGFR >30 mL/min/1.73 m^2, offering a lower risk of adverse renal effects compared to some other NSAIDs.[20]

DICLOFENAC FOR THE ELDERLY

The study conducted by Bakshi *et al.*[23] assessed the efficacy and tolerability of a new dispersible formulation of diclofenac in elderly patients suffering from OA. The elderly participants received 50 mg of dispersible diclofenac or placebo thrice daily, with paracetamol allowed as a rescue analgesic. Results in Table 2 indicate that dispersible diclofenac effectively treats OA in the elderly with an acceptable tolerability profile, addressing concerns about NSAID-induced adverse effects.

CONCLUSION

The recognition of synovitis as a crucial element in OA shifts the treatment paradigm. Diclofenac, with its robust pharmacological profile, stands out as a preferred option in OA management, offering efficacy, favorable renal attributes, and rapid onset of action, especially in patients with CKD and the elderly. The gathered evidence supports diclofenac as a preferred choice for OA management, forming a basis for seeking expert opinions from healthcare professionals.

Table 2: Overall evaluation of the efficacy of treatment at the end of 4-week study: Number (%) patients[23]

Assessment	Diclofenac dispersible (*n*=180) (%)	Placebo (*n*=87) (%)
Good	88 (48.9)	30 (34.5)
Moderate	59 (32.8)	24 (27.6)
Poor	33 (18.3)	33 (37.9)

Significant difference between treatments, P=0.002 (z^2 -test)

ACKNOWLEDGMENT

We would like to acknowledge Scientimed Solutions Pvt. Ltd. for assistance in developing the manuscript.

EXPERT OPINION

1.Dr. Surendra Kamath
M.B.B.S., D Ortho, DNB, FRCS, Rohan City Square, Ballalbagh, Mangalore, Karnataka

In my practice, diclofenac is a preferred choice for pain management in OA, prescribed in 25–50% of cases due to its proven efficacy. It provides significant pain relief, and improves physical function, and over 75% of patients find relief in synovial inflammation. Diclofenac enhances the quality of life for those with degenerative diseases, even in cases of renal dysfunction with an eGFR below 30. With a balanced efficacy and safety profile, it surpasses aceclofenac in inhibiting synovial COX. The higher synovial fluid-to-plasma concentration ratio (81%) leads to better symptom resolution. Sustained-release formulations are recommended for their superior gastroprotective profile, and the faster onset (within 1 h) makes diclofenac a preferred option for quicker pain relief.

2. Dr. Vinayak Nalawade
M.B.B.S., Diploma in Orthopedic, Amey Orthopedic Clinic, Kolhapur, Maharashtra

I prefer using diclofenac as the first-line choice for pain management in OA and other orthopedic conditions, based on its proven efficacy and balanced safety profile. In my experience, diclofenac provides significant relief in pain, stiffness, and physical function, benefiting approximately 50–75% of patients. Additionally, its higher synovial fluid concentration leads to better symptom resolution. Sustained-release formulations are also recommended for their gastro-protective benefits. Overall, diclofenac is a valuable tool for improving the quality of life for patients with degenerative diseases.

3. Dr. Namit Saraf
M. S. Orthopedic, Hiranandani Hospital, Thane, Maharashtra

Diclofenac is my preferred choice for OA pain, prescribed in 50–75% of cases for its superior effectiveness. Pain relief is the key parameter for its efficacy, consistently improving pain, stiffness, and function. Over 75% of patients experience relief in synovial inflammation, significantly enhancing quality of life in degenerative diseases such as OA. While caution is advised in cases of acute nephritis with low eGFR, diclofenac's balanced COX-1 and COX-2 inhibition offers a safe and effective profile. It surpasses aceclofenac in analgesic and anti-inflammatory effects for OA, leading to better symptom resolution. Sustained-release diclofenac is my recommendation for its dual benefits in pain relief and gastro-protection and its faster onset of action within 1 h.

4. Dr. Jigar Anandjiwala
M.B.B.S., D. Ortho, Vivaan Spine Clinic, Ahmedabad, Gujarat

In my practice, I prefer diclofenac for OA pain management in approximately 75% of patients, considering its superior efficacy and balanced safety profile. It consistently provides significant relief in pain, stiffness, and physical function. Over 75% of patients also experience relief from synovial inflammation. Diclofenac plays a crucial role in enhancing the quality of life for those with degenerative diseases. It is my recommendation for arthritis patients with existing renal dysfunction due to its established safety profile in such cases. With balanced COX-1 and COX-2 inhibition, diclofenac surpasses aceclofenac in analgesic and anti-inflammatory effects. The higher synovial fluid-to-plasma concentration ratio contributes to better symptom resolution. Considering its faster onset of pain relief, I frequently recommend diclofenac for prompt symptom alleviation.

5. Dr. Prashant Rane
M.B.B.S., D Ortho, Evershine Hospital, Vasai, Maharashtra

In my practice, I often use diclofenac for OA pain management due to its proven efficacy and favorable NNT score among NSAIDs. Notably, it provides substantial pain relief, with consistent improvements in pain VAS scores, reduced stiffness, and enhanced physical function. Over 75% of patients experience relief from synovial inflammation with diclofenac. It plays a crucial role in enhancing the quality of life for those with degenerative diseases. While I may administer diclofenac for specific renal conditions, careful consideration is given. Diclofenac demonstrates a balanced efficacy and safety profile, surpassing aceclofenac in analgesic and anti-inflammatory effects, especially in synovial COX inhibition. The higher synovial fluid-to-plasma concentration ratio (81%) of diclofenac suggests superior symptom resolution. I regularly recommend sustained-release formulations for better gastro-protection and quicker pain relief within 1 h, making diclofenac my preferred choice for rapid pain relief in my practice.

6. Dr. Mukeshchandra Kanakhara
M.S. (Ortho), Accident and Ortho Hospital, Palitana, Gujarat

In my clinical practice, I frequently use diclofenac for pain management in a substantial 50–75% of cases, where it consistently provides significant relief. Patients report a satisfactory level of pain reduction, with similar outcomes to other NSAIDs in terms of tolerability. It has balanced COX-1 and COX-2 inhibition, contributing significantly to its commendable efficacy and safety profile, rendering it my preferred choice. Its superior analgesic and anti-inflammatory effects compared to aceclofenac further bolster its position as the go-to treatment for OA. I also advocate for the use of the sustained-release formulation of diclofenac, known for its enhanced gastro-protective properties alongside effective pain relief. The fast onset of action of diclofenac and comprehensive symptom resolution make it an invaluable option for enhancing the quality of life of patients grappling with degenerative joint conditions like OA.

7. Dr. Arun Sam T
MS (Ortho), YMM Ortho Clinic, Cuddalore, Tamil Nadu

Diclofenac is employed as a preferred choice for pain management in approximately 25–50% of OA cases, demonstrating notable improvement in inflammation. It yields satisfactory results, with about 50–75% of patients experiencing relief. Regarding tolerability, it shows similar performance to other NSAIDs. The balanced COX-1 and COX-2 inhibition of diclofenac contributes to its commendable efficacy and safety profile, making it a preferred option. Additionally, its superior analgesic and anti-inflammatory effects over aceclofenac solidify its position as my preferred choice in treating OA. However, in terms of onset and symptom resolution, it aligns closely with aceclofenac. The sustained-release formulation of diclofenac, known for its better gastro-protective profile and effective pain relief, is also recommended. Overall, diclofenac is preferred for improving the quality of life in patients with degenerative joint diseases like OA.

8. Dr. Rahul Jain
M.B.B.S., D. Ortho, Bone, and Joint Clinic, Videha, Madhya Pradesh

Diclofenac is a preferred choice for pain management in OA patients, being prescribed in approximately 25–50%

of cases. It demonstrates satisfactory efficacy, providing notable relief in pain, VAS, stiffness, and physical function. Synovial inflammation relief is observed in about 50–75% of patients. The balanced COX-1 and COX-2 inhibition of diclofenac contributes to its commendable efficacy and safety profile compared to other NSAIDs. Additionally, its superior analgesic and anti-inflammatory effects over aceclofenac make it my preferred choice for treating OA. The sustained-release formulation of diclofenac, known for its better gastro-protective profile and effective pain relief, is also recommended.

9. Dr. Sunil Kumar
D. Ortho, Shiva Ortho Center, Bihar Sharif, Bihar

Diclofenac emerges as a preferred choice for pain management in OA, owing to its superior efficacy among NSAIDs. It exhibits balanced COX-1 and COX-2 inhibition, ensuring both effectiveness and safety. Clinical evidence supports its high efficacy, particularly in providing pain relief, improving physical function, and reducing synovial inflammation. With a rapid onset of action within an hour, diclofenac stands out for its prompt pain relief compared to aceclofenac. Additionally, its sustained-release formulations offer not only pain relief but also a better gastro-protective profile. Overall, diclofenac proves to be an invaluable tool in enhancing the quality of life for patients with degenerative conditions like OA and rheumatoid arthritis.

10. Dr. Rajender Kumar Setia
MS (Ortho), Setia Bone & Joint Hospital, Sri Ganganagar, Rajasthan

Diclofenac is preferred for pain management in OA, with a prescription rate ranging from 25–50%. Its efficacy, primarily in pain relief, is widely acknowledged, leading to noticeable improvements in pain VAS, stiffness, and physical function. Notably, a substantial 50–75% of patients experience relief from synovial inflammation. Diclofenac plays an excellent role in enhancing the quality of life for individuals grappling with degenerative diseases like OA and rheumatoid arthritis. While it outperforms aceclofenac in analgesic and anti-inflammatory effects for OA, patients with existing renal dysfunction should exercise caution, as other NSAIDs may be more suitable. The sustained-release formulation of diclofenac is recommended for its perceived gastro-protective profile, offering both pain relief and added safety benefits. Furthermore, its rapid onset of pain relief, achieved within an hour, positions diclofenac as a favorable option for expeditious pain management.

11. Dr. Shashikant Nawale
M.S. (Ortho), D.N.B., FCPS, D.Ortho, Shalyak Hospital, Mumbai, Maharashtra

Diclofenac is often preferred for OA pain management due to its superior efficacy among NSAIDs, but it is crucial to consider individual patient factors. This medication has shown remarkable effectiveness in alleviating pain, reducing stiffness, and enhancing physical function. Additionally, it notably addresses synovial inflammation in over 75% of cases. Diclofenac provides a positive impact on quality of life, particularly for those with degenerative diseases like OA and rheumatoid arthritis, which is substantial. Its balanced COX-1 and COX-2 inhibition contribute to its favorable efficacy and safety profile. Moreover, its higher synovial fluid-to-plasma concentration ratio compared to aceclofenac leads to notable improvements in symptom resolution. For patients seeking both effective pain relief and enhanced gastro-protection, sustained-release formulations of diclofenac are a recommended option, providing a valuable choice for expedited pain relief.

12. Dr. Azad Ansari
M.B.B.S. (Ortho), Azad Clinic, Chapra, Bihar

Diclofenac emerges as a preferred choice for pain management in OA, demonstrating superior efficacy among NSAIDs with a notable NNT score. Approximately 50–75% of patients are prescribed diclofenac for arthritis and orthopedic conditions, experiencing improved inflammation and symptomatic relief. It also exhibits effectiveness in alleviating synovial inflammation. Furthermore, diclofenac favors balanced COX-1 and COX-2 inhibition, improving the overall efficacy and safety profile, rendering it a suitable option for patients with existing renal dysfunction. Sustained-release formulations of this molecule not only offer effective pain relief but also present a superior gastro-protective profile, enhancing overall patient satisfaction. Finally, the faster onset of pain relief associated with diclofenac compared to aceclofenac positions it as the preferred choice for promptly alleviating pain in clinical practice.

13. Dr. Ram Sagar Pandit
M.B.B.S., DNB (Ortho), Sagar Ortho Care, Darbhanga, Bihar

Diclofenac stands out as a preferred choice for pain management in OA patients, offering effective relief. In my practice, I prescribe diclofenac to approximately 25–50% of patients, considering its favorable NNT score among NSAIDs. Its notable efficacy lies in providing substantial pain relief and significantly improving VAS scores, stiffness, and physical function. Moreover, it addresses synovial inflammation in 50–75% of cases, enhancing overall quality of life. Given its well-studied safety profile, I recommend diclofenac over other NSAIDs for those with existing renal dysfunction. Its balanced COX-1 and COX-2 inhibition supports its superior efficacy and safety. Compared to

aceclofenac, diclofenac demonstrates higher synovial fluid concentration, leading to better symptom resolution. The sustained-release formulation further strengthens its gastro-protective profile. Considering the faster onset of pain relief compared to aceclofenac, achieving peak concentration within an hour, I often recommend Diclofenac for prompt and effective pain relief.

14. Dr. Ankur Gupta
MS Ortho, Sadbhavna Hospital, Raipur, Madhya Pradesh

Diclofenac is my preferred choice for pain management in OA patients, prescribed to 25–50% of cases due to its favorable NNT score. It excels in providing significant pain relief and improving VAS scores, stiffness, and physical function. Over 75% experience relief from synovial inflammation. Diclofenac greatly enhances the quality of life for those with degenerative diseases, though its use in renal dysfunction is case-dependent. Its balanced COX inhibition ensures both efficacy and safety. While it may not surpass aceclofenac in all aspects, its higher synovial fluid concentration leads to better symptom resolution. Sustained-release formulations are recommended for their gastro-protective profile and pain relief. The faster onset of action makes diclofenac a preferable choice.

15. Dr. Jitendra Yede
M.B.B.S., MS, FNB, Gayatri Hospital, Gondia, Maharashtra

In OA management, Diclofenac stands out among oral NSAIDs and analgesics for its proven efficacy and safety. With a favorable NNT score, it is prescribed in 25–50% of cases, delivering significant pain relief and consistent improvements in VAS scores, stiffness, and physical function. Notably, it addresses synovial inflammation in 50–75% of patients, enhancing the quality of life. Diclofenac is suitable for those with acute nephritis and an eGFR <30. It also has a balanced COX-1 and COX-2 inhibition profile, which ensures efficacy and safety, surpassing aceclofenac in synovial COX inhibition. The higher synovial fluid-to-plasma concentration ratio leads to better symptom resolution. Sustained-release formulations are recommended for optimal efficacy and minimized gastro-intestinal side effects.

16. Dr. S D G K Khaleelullah
MS, Germantown Hospital, Hyderabad, Telangana

Diclofenac is preferred for OA pain management, benefiting 25–50% of patients due to its superior NNT score. It provides substantial pain relief, improvements in pain, stiffness, and physical function. Over 75% find relief from synovial inflammation, enhancing the quality of life for those with degenerative diseases. The balanced efficacy and safety profile, along with the higher synovial fluid concentration, make diclofenac a recommended choice. Sustained-release formulations offer effective pain relief and gastro-protection, with a rapid onset of action (within 1 h) for prompt relief.

17. Dr. G R Johar
MS Orthopedic, Bhagalpur, Bihar

Diclofenac is a preferred choice for pain management in OA patients due to its superior efficacy and balanced COX-1 and COX-2 inhibition. I prescribe diclofenac in 50–75% of cases for arthritis and orthopedic conditions, considering its favorable NNT score. Its primary efficacy lies in providing substantial pain relief, improving physical function, and alleviating synovial inflammation in approximately 50–75% of patients. While it offers symptomatic relief, the impact on overall quality of life may be less satisfactory in degenerative diseases such as OA and rheumatoid arthritis. I do not recommend diclofenac over other NSAIDs for patients with existing renal dysfunction. The sustained-release formulation is recommended for its gastro-protective profile. The higher synovial fluid-to-plasma concentration ratio (81% compared to aceclofenac 57%), indicates better symptom resolution. The choice between diclofenac and aceclofenac should consider the onset of pain relief, with diclofenac providing faster relief, though aceclofenac may be preferred for specific patients.

18. Dr. Rajnish Kumar
M.B.B.S., MS (Ortho), Life care Hospital, Ranchi, Jharkhand

Diclofenac is a highly effective choice for OA pain management, with a superior NNT score among NSAIDs. I typically prescribe it in 25–50% of arthritis and orthopedic cases. Its key strength lies in substantial pain relief, improving the quality of life. Diclofenac also addresses synovial inflammation, benefiting 50–75% of patients. Balanced COX-1 and COX-2 inhibition ensure a favorable efficacy and safety profile. With a higher synovial fluid-to-plasma concentration ratio than aceclofenac, it leads to better symptom resolution. Sustained-release formulations enhance the gastro-protective profile of diclofenac, making it a versatile and efficacious option for OA and related conditions.

19. Dr. Sunil Nikam
M.B.B.S., D Ortho, Shah Hospital, Pune, Maharashtra

Diclofenac is widely prescribed for OA pain management (50–75% of cases), providing substantial relief in pain, stiffness, and improved physical function. It effectively reduces synovial inflammation in over 75% of patients. While beneficial for OA and rheumatoid arthritis, caution is

advised for patients with acute nephritis and an EGFR <30, with careful monitoring and consideration of alternatives. Despite its efficacy, close monitoring is crucial for potential adverse effects, especially on the gastrointestinal and renal systems. In my clinical experience, diclofenac demonstrates superior analgesic and anti-inflammatory effects compared to aceclofenac in OA patients. Its higher synovial fluid-to-plasma concentration ratio leads to better symptom resolution. I recommend the sustained-release formulation for effective pain relief and improved gastro-protection. The faster onset of relief of diclofenac within 1 h makes it preferable to aceclofenac (plasma peak at 3 h). Treatment decisions should consider individual patient factors, emphasizing a tailored approach.

20. Dr. Jignesh Shah
M. S. (Ortho), Harsh Orthopedic Hospital, Ahmedabad, Gujarat

Diclofenac is a preferred choice for OA pain management and is prescribed to 50–75% of patients due to its superior NNT score among NSAIDs. It consistently improves pain, the Visual Aid Score (VAS), stiffness, and physical function, benefiting half to three-quarters of patients. Suitable for those with acute nephritis and eGFR <30, diclofenac has balanced COX-1 and COX-2 inhibition to ensure superior efficacy and safety, outperforming aceclofenac. Its higher synovial fluid-to-plasma concentration ratio leads to better symptom resolution. Sustained-release formulations, offering improved gastro-protection and sustained pain relief, are recommended for long-term management. The faster onset of pain relief within approximately 1 h makes diclofenac the preferred choice for prompt relief. In conclusion, diclofenac is an effective, well-tolerated option for OA and orthopedic conditions, offering advantages in efficacy, safety, and onset of action compared to select NSAIDs.

21. Dr. Anurag Sharma
MCH Ortho, Pradeep Hospital and Fracture Clinic, Bharatpur, Rajasthan

Diclofenac has proven to be a highly effective choice for pain management in OA patients. I prescribe it to approximately 50–75% of individuals with arthritis and other orthopedic conditions, which is consistent with its well-documented efficacy. Diclofenac consistently demonstrates significant improvements in inflammation, leading to enhanced pain relief and physical function. Moreover, it effectively addresses synovial inflammation in roughly 50–75% of cases, underscoring its value in managing this common issue in OA. Additionally, diclofenac plays a pivotal role in improving the overall quality of life for patients with degenerative diseases, mitigating healthcare costs, and contributing to their well-being. Its balanced efficacy and safety profile, owing to its dual COX-1 and COX-2 inhibition, further solidifies its status as a preferred option in my practice. Furthermore, its rapid onset of action, achieving peak plasma concentration in up to 1 h, makes it particularly advantageous for patients seeking prompt and effective pain relief, especially in acute situations.

22. Dr. Kapendra Mouli
M.B.B.S., MS Orthopedic, Apollo Clinic, Bangalore, Karnataka

In my clinical practice, diclofenac has proven to be a reliable choice for pain management in patients with OA. I prescribe it to approximately 50–75% of my patients, given its demonstrated efficacy. The paramount parameter of effectiveness, in my opinion, is its ability to provide substantial pain relief, significantly enhancing the quality of life for these individuals. Following treatment, patients consistently report notable improvements in pain VAS, reduced stiffness, and enhanced physical function. Moreover, I have observed that over 75% of patients experience relief from synovial inflammation, further emphasizing the effectiveness of diclofenac. Its balanced COX-1 and COX-2 inhibition, contribute to its favorable efficacy and safety profile. Consequently, diclofenac has become a cornerstone in my approach to pain management, consistently delivering positive outcomes for patients with OA.

23. Dr. Abdul Gafoor PM
M.B.B.S., DNB ortho, MRCS, Iqraa Hospital, Kozhikode, Kerala

In my practice, I often rely on diclofenac for OA pain management, prescribing it to 25–50% of patients due to its superior NNT score among NSAIDs. Its key strength is delivering substantial pain relief, with over 75% of patients experiencing relief from synovial inflammation. Based on the research highlighting balanced COX-1 and COX-2 inhibition, diclofenac achieves a commendable equilibrium between efficacy and safety. It consistently outperforms aceclofenac in analgesic and anti-inflammatory effects, attributed to its higher synovial fluid-to-plasma concentration ratio (81%). I often recommend sustained-release diclofenac formulations due to their gastro-protective benefits and potent pain relief. Due to its expedited onset of pain relief compared to aceclofenac, I frequently recommend aiclofenac to ensure faster pain relief for my patients.

24. Dr. B Venu Madhav
M.S. Orthopedics, Mallareddy Narayana Hospital, Hyderabad, Telangana

In my practice, diclofenac is a preferred choice for OA pain management. It boasts a favorable NNT score among NSAIDs, prescribed in 50–75% of cases. Its standout efficacy lies in substantial pain relief and improved quality of life. I consistently observe positive outcomes in terms of pain, stiffness, and physical function. Over 50% of patients find relief from synovial inflammation. Diclofenac plays a vital role in enhancing the quality of life for those with degenerative diseases. It is a safe option for arthritis patients with existing renal dysfunction. Its balanced COX-1 and COX-2 inhibition results in a favorable efficacy and safety profile. Diclofenac shows superior synovial COX inhibition, setting it apart from aceclofenac. Higher synovial fluid to plasma concentration (81% vs. 57%), leads to better symptom resolution. Sustained-release formulations are recommended for their gastro-protective profile and effective pain relief. For faster pain relief, diclofenac is the preferred choice due to its quicker onset.

25. Dr. Nirmal Agrawal
M.S. Orthopedic, Siddhivinayak Hospital, Vikhroli, Mumbai, Maharashtra

In my practice, diclofenac is my preferred choice for pain management in OA patients, offering proven efficacy and improved quality of life. I prescribe it to 50–75% of patients based on its favorable NNT score. Diclofenac consistently provides substantial pain relief, improves function, and reduces stiffness. It effectively addresses synovial inflammation in the majority of cases. Additionally, the balanced efficacy and safety profile, along with superior COX inhibition, make it a trusted option. It outperforms aceclofenac in analgesic and anti-inflammatory effects. The higher synovial concentration indicates better symptom resolution. I recommend sustained-release formulations for their added gastro-protective benefits and pain relief. The swift onset of pain relief within 1 h with diclofenac makes it a preferred choice for faster relief.

26. Dr. Anish Kumar Jain
M.B.B.S., D Ortho, Chirayu Clinic, Indore, Madhya Pradesh

In my practice, diclofenac is my preferred choice for pain management in OA patients, offering proven efficacy and improved quality of life. I prescribe it to 50–75% of patients based on its favorable NNT score. Diclofenac consistently provides substantial pain relief, improves function, and reduces stiffness. It effectively addresses synovial inflammation in the majority of cases. Additionally, the balanced efficacy and safety profile of diclofenac along with its superior COX inhibition make it a trusted option. It outperforms aceclofenac in analgesic and anti-inflammatory effects. The higher synovial concentration indicates better symptom resolution. I recommend sustained-release formulations for their added gastro-protective benefits and pain relief. The swift onset of pain relief from diclofenac within 1 h makes it a preferred choice for faster relief.

27. Dr. Md Imran
M.B.B.S., D Ortho, Aziz Memorial City Hospital, Katihar, Bihar

In my clinical practice, diclofenac is employed in 25–50% of cases for pain relief in OA patients, yielding satisfactory results in 50–75% of patients. I find diclofenac effective in improving pain, stiffness, and physical function. Additionally, its balanced COX-1 and COX-2 inhibition contribute to its commendable efficacy and safety profile. In my assessment, diclofenac surpasses aceclofenac in terms of analgesic and anti-inflammatory effects for OA patients. Furthermore, I recommend a sustained-release formulation of diclofenac for its superior gastro-protective profile and pain relief. Overall, diclofenac plays a pivotal role in enhancing the quality of life in patients with degenerative joint diseases such as OA.

28. Dr. M Ganesh Kumar Reddy
M.B.B.S., M.S. (Orthopedics), Medicover Hospitals, Kurnool, Andhra Pradesh

In my practice, I often prescribe diclofenac to 50–75% of OA patients due to its favorable NNT score among NSAIDs. While its notable efficacy lies in reducing stiffness, synovial inflammation relief is observed in 50–75% of patients. Diclofenac contributes significantly to improving the quality of life in degenerative diseases, particularly in cases of existing renal dysfunction. Its balanced efficacy and safety profile, with superior efficacy among NSAIDs, make it a preferred choice. While not inherently superior to aceclofenac, diclofenac may lead to better symptom resolution. I consider individual patient factors and preferences in my recommendations, and the faster onset of pain relief makes diclofenac a frequent choice for quicker pain management.

29. Dr. H Sunil Kumar
M.S. Ortho, Jayanagar Orthopedic Centre, Bangalore, Karnataka

In my practice, I commonly use diclofenac for effective OA pain management, which is prescribed to 50–75% of patients due to its favorable NNT score. Its significant efficacy lies in delivering substantial pain relief and enhancing physical function. Over 75% of patients find relief from synovial inflammation. Diclofenac demonstrates a balanced efficacy and safety profile, surpassing aceclofenac in synovial COX inhibition. I recommend sustained-release diclofenac

formulations for their improved gastro-protection and pain relief. Due to its quicker pain relief onset, I favor diclofenac for enhancing the quality of life and reducing healthcare costs for those with degenerative diseases. While it can be administered to patients with acute nephritis and eGFR < 30, careful consideration is crucial for those with existing renal dysfunction. I often suggest diclofenac for faster relief, achieved within an hour compared to 3 h of aceclofenac.

30. Dr. Shivashankar Adavaraju
M.S. Ortho, Avinash Ortho Hospital, Bhimavaram, Andhra Pradesh

In my clinical practice, diclofenac is the preferred choice for OA pain management in approximately 50–75% of patients due to its favorable NNT score. Its standout efficacy lies in significant pain relief and improved physical function, reliably relieving synovial inflammation in over 75% of patients. Diclofenac plays a crucial role in enhancing the quality of life for patients with degenerative diseases. It is often recommended for arthritis patients with acute nephritis and an eGFR <30, considering its well-studied safety profile. Its balanced COX-1 and COX-2 inhibition leads to an effective and safe pain relief option. Diclofenac outperforms aceclofenac in analgesic and anti-inflammatory effects for OA patients, with a higher synovial fluid-to-plasma concentration ratio (81%). I frequently recommend sustained-release diclofenac formulations for their improved gastro-protective profile and pain relief, and the faster onset of relief (within 1 h) makes it a preferred choice over aceclofenac for my patients.

31. Dr. Sagar Chhayani
M.S. Orthopedics, Radheshyam Orthopedic and Women's Hospital, Surat, Gujarat

In my practice, diclofenac proves effective for OA pain management, with a prescription rate of 50–75% based on its favorable NNT score among NSAIDs. Its notable efficacy lies in providing significant pain relief and improving overall quality of life. I have observed enhanced pain VAS scores, reduced stiffness, and improved physical function post-treatment. Over 75% of patients experience relief from synovial inflammation. Diclofenac plays a vital role in improving the quality of life for patients with degenerative diseases. Although cautiously administered in cases of acute nephritis and eGFR <30, it demonstrates a balanced efficacy and safety profile. It surpasses aceclofenac in consistent synovial COX inhibition. The higher synovial fluid-to-plasma concentration ratio (81%) suggests superior symptom resolution. Sustained-release diclofenac formulations are regularly recommended for their gastro-protective profile. Due to its faster onset of pain relief, often within 1 h, diclofenac is a preferred choice for rapid pain relief in my practice.

32. Dr. Brajesh Wamanker
M.S. Orthopedic, Sanjivani Hospital, Betul, Madhya Pradesh

In my practice, diclofenac is frequently employed for pain management in 25–50% of OA patients due to its proven efficacy and favorable NNT score. Its notable efficacy lies in substantial pain relief, improved physical function, and over 75% of patients experiencing relief from synovial inflammation. Diclofenac demonstrates balanced efficacy and safety with COX-1 and COX-2 inhibition, surpassing aceclofenac in synovial COX inhibition for superior effectiveness. The higher synovial fluid-to-plasma concentration ratio (81% vs. 57%) indicates better symptom resolution. I recommend sustained-release diclofenac formulations for enhanced gastro-protection and pain relief. Its quicker pain relief onset improves the quality of life and reduces healthcare costs. While suitable for patients with acute nephritis and an eGFR <30, careful consideration is crucial for those with existing renal dysfunction. Diclofenac is preferred for faster relief, achieved within an hour compared to 3 h with aceclofenac.

33. Dr. Aware Sandeep
M.S. (Ortho), Dr. Aware Hospital, Nashik, Maharashtra

Diclofenac is used in approximately 25–50% of OA cases, consistently providing substantial pain relief. Its efficacy surpasses expectations, yielding a satisfaction rate of over 75% among patients. Diclofenac has balanced COX-1 and COX-2 inhibition, along with its demonstrated safety, further solidifying its position as a preferred choice. It consistently improves pain, VAS, stiffness, and physical function. Additionally, the efficacy of diclofenac extends to synovial inflammation relief, achieving positive outcomes in the majority of cases. This comprehensive approach significantly contributes to enhancing the overall quality of life for patients with degenerative joint diseases.

34. Dr. Melvin J George
DNB, MOSC Medical College, Kolenchery, Kerala

Diclofenac has proven to be an effective choice for pain management in OA patients, providing pain relief in approximately 50–75% of cases. The level of relief is considered satisfactory by a similar percentage of patients. I do not observe any significant concerns regarding its use, as it has demonstrated positive outcomes in terms of pain relief, satisfaction, and safety in my practice. Therefore, I consistently recommend and prescribe diclofenac for the treatment of OA.

35. Dr. Abhijit M Chandge
M. S. (Ortho), Dr. Hedgewar Hospital, Aurangabad, Maharashtra

In my opinion, diclofenac is a key player in the management of OA pain, accounting for 25–50% of my prescriptions. The NNT score of this molecule aligns with practical improvements in pain relief, stiffness, and physical function. Notably, 50–75% of patients report improvement from synovial inflammation. Diclofenac improves the quality of life for those with degenerative diseases. While recognizing its balanced efficacy and safety, I remain cautious about recommending it to arthritic patients with existing renal issues. I also advocate for sustained-release formulations for their perceived gastro-protective benefits.

36. Dr. Ravjit Singh
M.B.B.S., MS, DNB (Orthopedics), Chandigarh

In my practice, diclofenac is administered for OA pain at a prescribing rate of 25–50%. Based on evidence, its superior NNT score distinguishes it from other NSAIDs. I have observed its efficacy in inflammation reduction, symptom relief, and improved physical function. Notably, diclofenac excels in alleviating synovial inflammation (50–75%). I prefer it over other NSAIDs for arthritis patients with renal issues due to its well-studied safety. It has balanced COX-1 and COX-2 inhibition, contributing to a favorable efficacy and safety profile. In my assessment, diclofenac outperforms cyclofenil in OA treatment. The higher synovial concentration ratio (81%) implies better symptom resolution compared to aceclofenac (57%). Sustained-release diclofenac gets my recommendation, offering not only pain relief but also perceived gastro-protection. Overall, diclofenac emerges as a reliable, well-rounded choice for effective pain management in OA patients.

37. Dr. Ganesan G Ram
M.S. (Ortho), Ph.D. (Ortho), Velammal Medical College, Madurai, Tamil Nadu

Diclofenac plays a pivotal role in treating OA pain, and it is prescribed in 25–50% of cases due to its notable efficacy. With positive impacts on pain VAS, stiffness, and physical function, it stands out for relieving synovial inflammation in 50–75% of patients. While I appreciate its balanced efficacy and safety, I approach its use cautiously in those with renal dysfunction. Sustained-release formulations are considered for their perceived gastro-protective benefits. In summary, diclofenac is a popular option for effective and well-tolerated pain management in arthritis and orthopedic conditions.

38. Dr. Tanmoy Sircar
M.B.B.S., D Ortho, Clinic, Jabalpur, Madhya Pradesh

In 25–50% of cases, I prescribe diclofenac to manage pain in OA patients due to its efficacy. I have observed improvements in the pain VA score, physical function, and stiffness after prescribing diclofenac. It proves to be an excellent choice for enhancing the quality of life for patients with OA and rheumatoid arthritis, particularly in cases involving synovial inflammation. I believe diclofenac, with its balanced COX-1 and COX-2 inhibition, offers a better safety profile. Additionally, I find diclofenac superior to aceclofenac in terms of symptom control and a faster onset of analgesic effects. I would recommend the sustained-release formulation of diclofenac for a better gastro-protective profile, coupled with effective pain relief.

39. Dr. Karthic Natarajan
M.B.B.S., MD, DNB, FIAPM, FIPP, Synapse Pain and Spine Clinic, Chennai, Tamil Nadu

Diclofenac is commonly prescribed in 25–50% of cases because it effectively relieves OA pain. It contains anti-inflammation, making it effective in reducing synovial inflammation in 50–75% of patients. Although I acknowledge its effectiveness and safety, I use it carefully with those who have kidney problems. Slow-release variants of diclofenac are being considered for stomach protection. For me, diclofenac is a preferred choice for managing pain effectively and comfortably in arthritis and orthopedic conditions.

40. Dr. Hementha Kumar
M.B.B.S., MS ORTHO, D ORTHO, Dr. Hementha Bone and Joint Clinic, Chennai, Tamil Nadu

Diclofenac is frequently prescribed due to its effectiveness in alleviating OA pain. It significantly reduces inflammation, particularly synovial inflammation, in the majority of patients. While recognizing its efficacy and safety, I cautiously prescribe it to individuals with kidney issues. Slow-release formulations of diclofenac are preferred for their potential GI protection. Overall, diclofenac remains my preferred medication for effectively and comfortably managing pain in arthritis and orthopedic conditions.

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How to cite this article: Pandit RS, Imran M, Kumar R, Wamankar B, Gupta A, Sam TA, Nalawade V. Diclofenac in Osteoarthritis Management: A Focus on Synovitis Treatment Strategies. Int J Sci Stud 2024;11(12):4-14.

Source of Support: Nil, **Conflicts of Interest:** None declared.