Original Research

PAEDIATRIC CHRONIC SEPTIC ARTHRITIS OF THE HIP: AN OBSERVATIONAL CLINICORADIOLOGICAL AND HISTOPATHOLOGICAL STUDY

Dr. Ashish Kumar Sriwastava[1*], Dr. Nikhil Maurya[2], Dr. Sneha Praveen[3]
[1*]Senior Resident, Department of Orthopedics, GMC, Singrauli, Madhya Pradesh.
[2]Senior Resident, Department of Pathology, GMC, Singrauli, Madhya Pradesh.
[3]Senior Resident, Department of Paediatrics, JNKTMCH Madhepura, Bihar.
Email: [1]1991ashish25@gmail.com, [2]mauryanikhil@ymail.com, [3]drsnehapraveen1710@gmail.com
Corresponding Author: Dr. Ashish Kumar Sriwastava

ABSTRACT

Background: Chronic septic arthritis of the hip in children is an uncommon but serious condition, often resulting from delayed diagnosis or inadequate initial treatment. Unlike acute presentations, chronic disease may present with subtle clinical features, leading to progressive joint destruction, deformity, and long-term functional impairment. Early recognition and appropriate management are essential to minimize morbidity.

Objectives: To evaluate the clinical presentation, radiological features, histopathological findings, and short-term functional outcomes of paediatric patients diagnosed with chronic septic arthritis of the hip.

Materials and Methods: This observational clinicoradiological and histopathological study was conducted at a tertiary care teaching hospital over a ten-month period from February 2025 to November 2025. A total of 32 paediatric patients aged 2–14 years with symptoms persisting for more than four weeks were included. All patients underwent detailed clinical evaluation, laboratory investigations, radiological assessment including plain radiography and selective magnetic resonance imaging, surgical arthrotomy and debridement, and histopathological examination of synovial tissue. Functional outcomes were assessed at 2-month follow-up using modified Moon's criteria.

Results: The mean age of patients was 6.8 years, with a male predominance. Limp and restricted hip movements were the most common presenting features. Radiological evaluation revealed joint space narrowing and femoral head changes in most patients, while MRI identified associated osteomyelitis and soft tissue involvement in selected cases. Histopathological examination confirmed chronic inflammatory changes in all patients, with no evidence of tuberculosis. At short-term follow-up, 68.7% of patients achieved good to excellent functional outcomes, while poorer outcomes were associated with advanced disease at presentation.

Conclusion: Chronic septic arthritis of the hip in children remains a diagnostic and therapeutic challenge due to delayed presentation and subtle clinical features. A combined clinicoradiological and histopathological approach, along with timely surgical intervention, results in satisfactory short-term functional outcomes. Early diagnosis and prompt management are crucial to reduce joint damage and improve outcomes in affected children.

INTRODUCTION

Septic arthritis of the hip in children is a serious orthopaedic condition that demands early diagnosis and prompt treatment to prevent irreversible joint damage and long-term functional disability. The hip joint, owing to its deep anatomical location, rich vascular supply, and proximity of the metaphysis to the joint capsule in growing children, is particularly vulnerable to rapid cartilage destruction once infection is established (1). While acute septic arthritis has been extensively studied and is well recognized as an orthopaedic emergency, chronic septic arthritis of the hip in the paediatric population remains relatively underreported and poorly understood.

Chronic septic arthritis is generally defined as persistent joint infection with symptoms extending beyond four to six weeks, often resulting from delayed diagnosis, inadequate initial treatment, or partial suppression of infection due to prior antibiotic use (2). In developing countries, delayed presentation is common because of limited access to healthcare, misdiagnosis, or initial treatment by non-specialists. As a result, many children present in the chronic stage with established joint destruction, deformity, limb length discrepancy, and restricted hip mobility, making management more complex and outcomes less predictable.

The pathophysiology of chronic septic arthritis differs from that of the acute form. Persistent synovial inflammation leads to pannus formation,

www.ajmrhs.com
eISSN: 2583-7761

Date of Received: 01-01-2025
Date Acceptance: 17-01-2026
Date of Publication: 18-02-2026

progressive cartilage erosion, subchondral bone involvement, and eventual deformity of the femoral head and acetabulum (3). In children, continued inflammation may also disrupt the growth plate, resulting in growth disturbances and secondary deformities of the hip. These pathological changes underscore the importance of early recognition and accurate assessment of disease extent in chronic cases.

Clinical diagnosis of chronic septic arthritis of the hip can be challenging. Unlike acute presentations, systemic signs such as fever and marked elevation of inflammatory markers may be absent or minimal in chronic disease (4). Children often present with vague complaints such as limp, intermittent pain, or reduced range of motion, which can mimic other conditions including tuberculosis of the hip, inflammatory arthritis, Perthes disease, or non-infective osteomyelitis. Consequently, reliance on clinical features alone is insufficient, and a comprehensive clinicoradiological evaluation becomes essential.

Radiological assessment plays a pivotal role in the diagnosis and staging of chronic septic arthritis of the hip. Plain radiographs may demonstrate joint space narrowing, osteopenia, femoral head erosion, subluxation, or acetabular changes in advanced disease, but early radiographic findings are often subtle or nonspecific (5). Ultrasonography is useful in detecting joint effusion, particularly in younger children, but provides limited information regarding osseous involvement. Magnetic resonance imaging has emerged as the most sensitive imaging modality for evaluating both intra-articular and extra-articular disease, allowing detailed assessment of synovial hypertrophy, cartilage damage, bone marrow edema, and associated osteomyelitis (6).

Histopathological examination of synovial tissue serves as an important adjunct in chronic cases, especially in regions where tuberculosis is endemic. Chronic septic arthritis may show synovial hyperplasia, chronic inflammatory cell infiltrates, fibrosis, and granulation tissue, findings that help differentiate it from tubercular arthritis and other chronic inflammatory conditions (7). Correlation of histopathological findings with clinical and radiological features enhances diagnostic accuracy and guides appropriate management strategies.

Despite advances in imaging and surgical techniques, there remains a paucity of literature focusing specifically on the clinicoradiological and histopathological spectrum of paediatric chronic septic arthritis of the hip. Most existing studies primarily address acute infections or combine acute and chronic cases, limiting the understanding of disease progression and outcomes in chronic presentations. The present study was therefore undertaken to analyze the clinical features, radiological patterns, histopathological findings, and functional outcomes in children diagnosed with chronic septic arthritis of the hip, with the aim of improving early recognition and optimizing management of this challenging condition.

MATERIALS AND METHODS

2.1 Study Design

This study was designed as an observational clinicoradiological and histopathological analysis of paediatric patients diagnosed with chronic septic arthritis of the hip. The study aimed to evaluate the clinical presentation, radiological patterns, histopathological features, treatment methods, and functional outcomes in children presenting with chronic disease.

2.2 Study Setting

The study was conducted in the Department of Orthopaedics at a tertiary care teaching hospital that serves as a referral center for paediatric musculoskeletal infections. The hospital caters to patients from both urban and rural regions, with a significant number of delayed presentations.

2.3 Study Duration

The study was conducted over a period of ten months, from February 2025 to November 2025, during which all eligible paediatric patients presenting with chronic septic arthritis of the hip were included and followed up.

2.4 Study Population

Children diagnosed with chronic septic arthritis of the hip were enrolled in the study. Chronic septic arthritis was defined as infection of the hip joint with persistence of symptoms for more than four weeks at the time of presentation, irrespective of any prior treatment (8).

A total of 32 paediatric patients fulfilling the inclusion criteria were included for final analysis.

2.4.1 Inclusion Criteria

- Children aged 2 to 14 years
- Clinical features suggestive of septic arthritis of the hip
- Duration of symptoms exceeding four weeks
- Radiological evidence consistent with chronic joint infection
- Patients undergoing surgical intervention with availability of tissue for histopathological examination

2.4.2 Exclusion Criteria

- Tuberculosis of the hip
- Juvenile idiopathic or inflammatory arthritis
- Congenital or developmental disorders of the hip
- Previous hip surgery for non-infective conditions
- Incomplete clinical or radiological records

2.5 Clinical Evaluation

All patients underwent detailed clinical assessment at presentation. Data recorded included age, sex, side involved, duration of symptoms, history of fever, limp, pain, and inability to bear weight. Physical examination focused on hip tenderness, range of motion, deformity, gait pattern, and limb

length discrepancy. Range of motion was assessed gently due to associated pain and stiffness (9).

2.6 Laboratory Investigations

Baseline laboratory investigations were performed in all patients and included:

- Total leukocyte count
- Erythrocyte sedimentation rate (ESR)
- C-reactive protein (CRP)

These investigations were used to support the diagnosis and assess inflammatory activity. Normal or mildly elevated values were not considered exclusionary, particularly in chronic presentations (10).

2.7 Radiological Evaluation

Radiological assessment was performed systematically in all patients.

2.7.1 Plain Radiography

Anteroposterior radiographs of the pelvis including both hips were obtained for all patients. Radiographs were evaluated for joint space narrowing, periarticular osteopenia, femoral head erosion or flattening, subluxation or dislocation, acetabular involvement, and secondary deformities (11).

2.7.2 Ultrasonography

Ultrasonography of the hip was used to detect joint effusion, synovial thickening, and periarticular collections, particularly in younger children and in cases where clinical assessment was limited.

2.7.3 Magnetic Resonance Imaging

Magnetic resonance imaging (MRI) of the hip was performed in selected patients where feasible to assess the extent of intra-articular and extra-articular involvement. MRI findings evaluated included synovial hypertrophy, cartilage destruction, bone marrow edema, femoral head and acetabular involvement, associated osteomyelitis, and soft tissue abscesses. MRI was considered the most sensitive modality for defining disease extent in chronic septic arthritis (11).

2.8 Surgical Management

All patients underwent open arthrotomy and debridement of the affected hip joint. Intraoperative findings such as synovial hypertrophy, presence of purulent or turbid joint fluid, cartilage damage, and bony erosion were documented. Thorough joint lavage was performed, and synovial tissue along with necrotic material was collected for histopathological examination (8).

2.9 Histopathological Examination

Synovial tissue obtained during surgery was subjected to histopathological analysis. Specimens were examined for evidence of chronic inflammatory changes, including synovial hyperplasia, lymphoplasmacytic infiltrates, fibrosis, and granulation tissue. The absence of granulomatous inflammation and caseation was specifically noted to exclude tubercular arthritis (12).

2.10 Postoperative Management

Postoperatively, patients were managed according to institutional protocol. Antibiotic therapy was administered based on clinical judgment. Immobilization was followed by gradual mobilization once pain and inflammation subsided. A structured physiotherapy program was initiated to restore hip range of motion and improve functional recovery.

2.11 Outcome Assessment

Functional outcomes were assessed at follow-up using modified Moon's criteria, evaluating pain, range of motion, gait, and ability to perform daily activities. Outcomes were graded as excellent, good, fair, or poor (12).

2.12 Statistical Analysis

Data were recorded using standardized proformas and analyzed using descriptive statistical methods. Results were expressed as frequencies, percentages, means, and ranges where appropriate.

RESULTS

3.1 Study Population and Demographic Profile

A total of 32 paediatric patients diagnosed with chronic septic arthritis of the hip were included in the study. All patients fulfilled the inclusion criteria and completed the minimum required follow-up.

The mean age at presentation was 6.8 years (range: 2–14 years). There were 19 male patients (59.4%) and 13 female patients (40.6%), with a male-to-female ratio of 1.46:1. The right hip was involved in 18 patients (56.3%), while the left hip was affected in 14 patients (43.7%). No cases of bilateral involvement were observed.

The demographic characteristics of the study population are summarized in Table 1.

Table 1. Demographic Profile of the Study Population (n = 32)

Parameter	Value
Total number of patients	32
Mean age (years)	6.8 (range: 2–14)
Age group 2–5 years	14 (43.8%)
Age group 6–10 years	12 (37.5%)
Age group 11–14 years	6 (18.7%)
Sex (Male: Female)	19: 13
Side involved (Right)	18 (56.3%)
Side involved (Left)	14 (43.7%)
Bilateral involvement	Nil

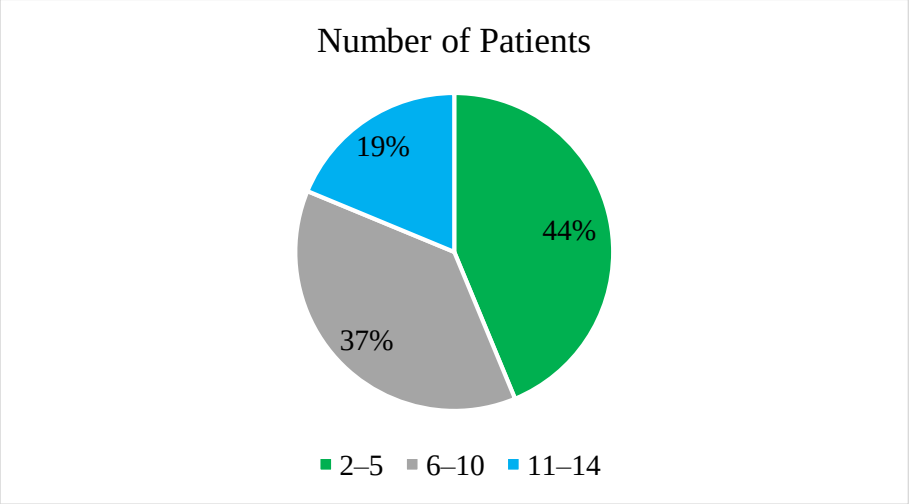

Figure 1. Age Distribution

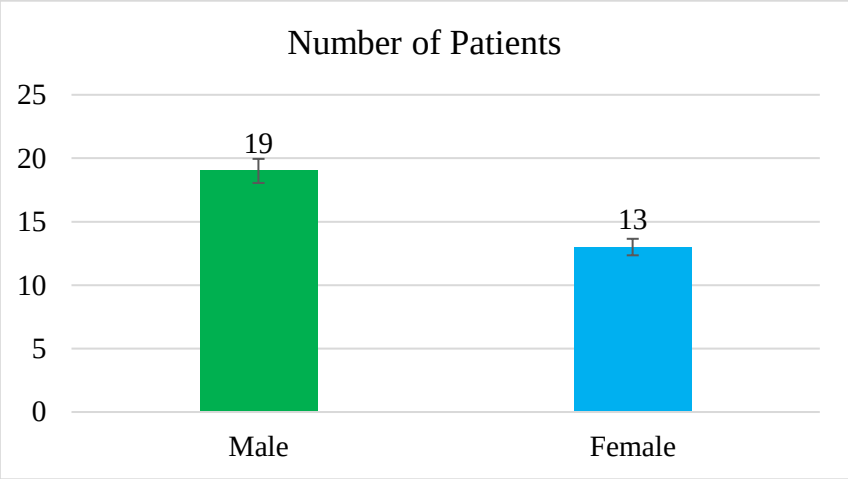

Figure 2. Gender Distribution

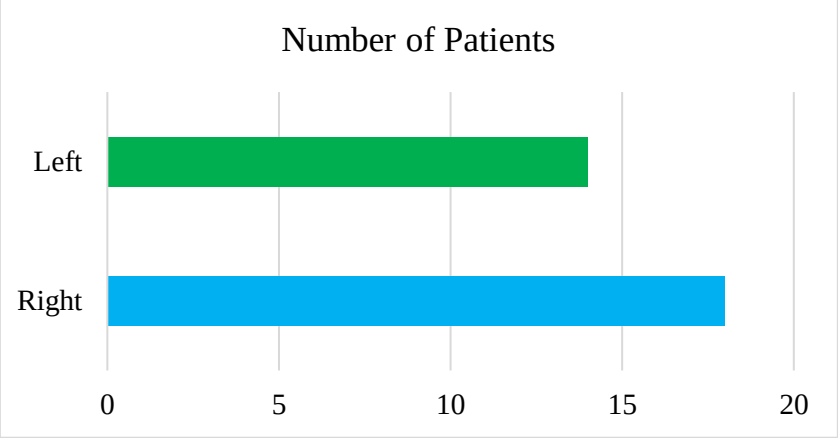

Figure 3. Side of Hip Involvement

3.2 Clinical Presentation

The most common presenting complaint was limp, noted in 28 patients (87.5%), followed by hip pain in 25 patients (78.1%). A history of fever at any stage of illness was present in 14 patients (43.8%).

All patients demonstrated restriction of hip movements (100%) at presentation. Inability to bear weight was observed in 21 patients (65.6%). Clinically detectable limb length discrepancy was present in 9 patients (28.1%), with shortening ranging from 0.5 cm to 2 cm. The mean duration of symptoms prior to presentation was 9.6 weeks (range: 5–20 weeks).

The clinical features at presentation are detailed in **Table 2.**

Table 2. Clinical Presentation at Admission

Clinical feature	Number of patients (%)
Limp	28 (87.5%)
Hip pain	25 (78.1%)
Fever	14 (43.8%)
Restriction of hip movements	32 (100%)
Inability to bear weight	21 (65.6%)
Limb length discrepancy	9 (28.1%)
Mean duration of symptoms	9.6 weeks (range 5–20)

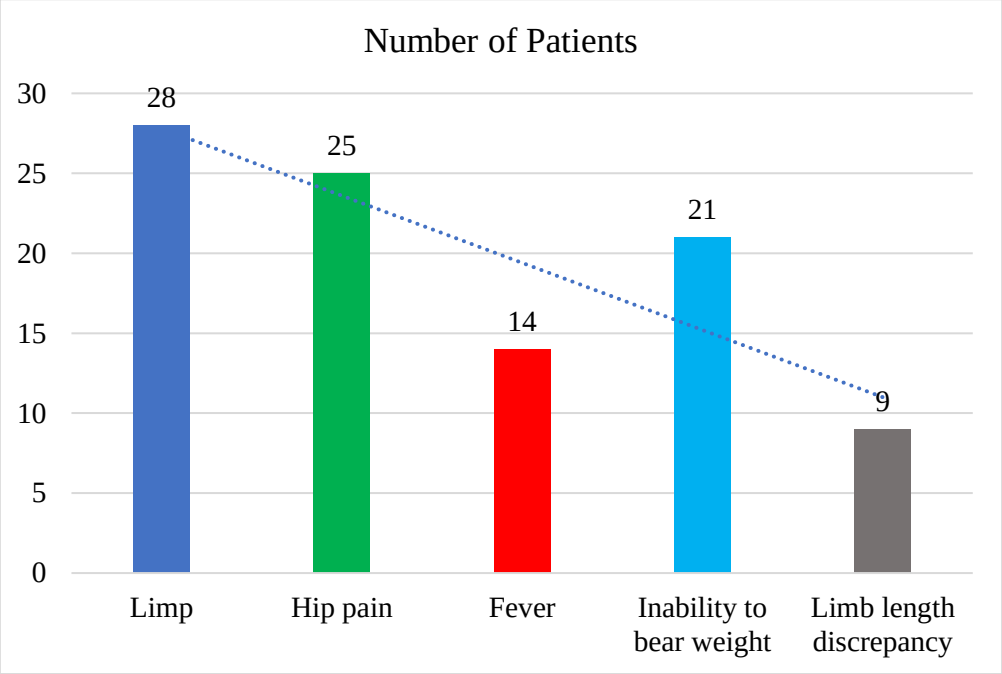

Figure 4. Clinical Presentation

3.3 Laboratory Findings

Laboratory investigations revealed elevated ESR (>20 mm/hr) in 24 patients (75%), elevated CRP (>10 mg/L) in 22 patients (68.8%), and raised total leukocyte count (>11,000 cells/mm³) in 16 patients (50%). Notably, 8 patients (25%) had near-normal inflammatory markers despite established chronic disease.

The laboratory findings are summarized in Table 3.

Table 3. Laboratory Findings

Investigation	Abnormal values n (%)
Elevated ESR (>20 mm/hr)	24 (75%)
Elevated CRP (>10 mg/L)	22 (68.8%)
Raised total leukocyte count	16 (50%)
Near-normal inflammatory markers	8 (25%)

3.4 Radiological Findings

3.4.1 Plain Radiography

Plain radiographs of the pelvis demonstrated abnormal findings in 29 patients (90.6%). The most common radiographic features included joint space narrowing (81.3%), periarticular osteopenia (65.6%), and femoral head erosion or flattening (53.1%). Subluxation or dislocation was observed in 25% of cases, while acetabular involvement was noted in 31.3%. Three patients (9.4%) showed minimal radiographic changes despite significant clinical symptoms.

The plain radiographic findings are summarized in Table 4.

Table 4. Plain Radiographic Findings

Radiographic feature	Number of patients (%)
Joint space narrowing	26 (81.3%)
Periarticular osteopenia	21 (65.6%)
Femoral head erosion / flattening	17 (53.1%)
Subluxation / dislocation	8 (25%)
Acetabular involvement	10 (31.3%)
Minimal radiographic changes	3 (9.4%)

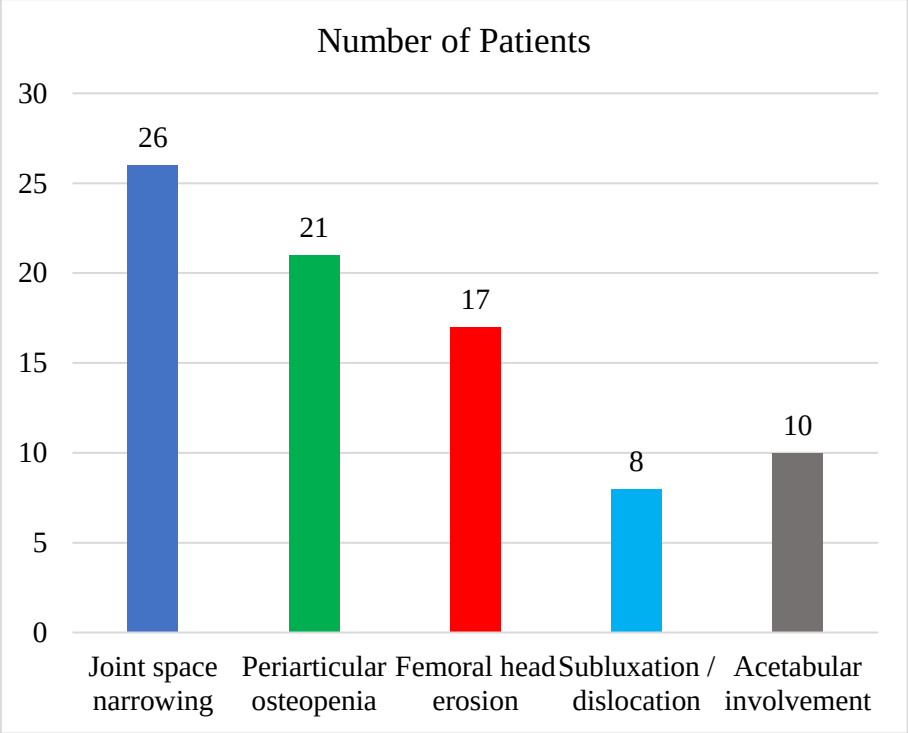

Figure 5. Plain Radiographic Findings

3.4.2 Ultrasonography

Ultrasonographic examination revealed joint effusion in 30 patients (93.8%), synovial thickening in 18 patients (56.3%), and periarticular collections in 7 patients (21.9%).

The ultrasonographic findings are shown in Table 5.

Table 5. Ultrasonography Findings

Ultrasonographic finding	Number of patients (%)
Joint effusion	30 (93.8%)
Synovial thickening	18 (56.3%)
Periarticular collection	7 (21.9%)

3.4.3 Magnetic Resonance Imaging

MRI was performed in 23 patients (71.9%). MRI findings included synovial hypertrophy (91.3%), bone marrow edema (69.6%), cartilage destruction (60.9%), associated osteomyelitis (39.1%), and soft tissue abscess (26.1%). MRI detected additional osseous involvement in 6 patients (26.1%) that was not evident on plain radiographs. MRI findings are summarized in Table 6.

Table 6. MRI Findings (n = 23)

MRI feature	Number of patients (%)
Synovial hypertrophy	21 (91.3%)
Bone marrow edema	16 (69.6%)
Cartilage destruction	14 (60.9%)
Associated osteomyelitis	9 (39.1%)
Soft tissue abscess	6 (26.1%)
Additional findings missed on X-ray	6 (26.1%)

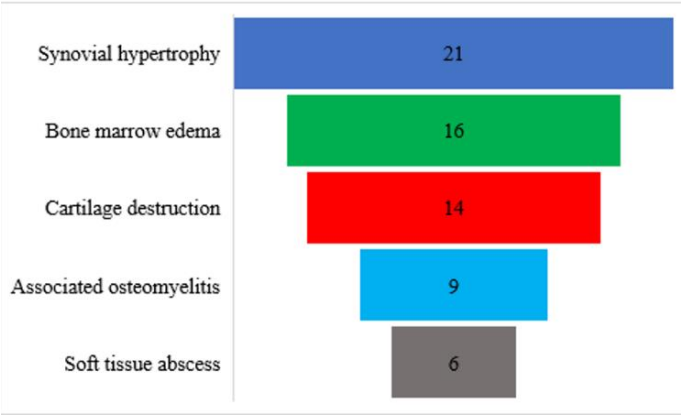

Figure 6. MRI Findings

3.5 Intraoperative Findings

All patients underwent open arthrotomy and debridement of the affected hip. Intraoperatively, hypertrophic synovium was observed in all patients (100%). Purulent or turbid joint fluid was present in 20 patients (62.5%), cartilage damage in 18 patients (56.3%), and bony erosion in 12 patients (37.5%). The intraoperative findings are detailed in Table 7.

Table 7. Intraoperative Findings

Finding	Number of patients (%)
Hypertrophic synovium	32 (100%)
Purulent / turbid joint fluid	20 (62.5%)
Cartilage damage	18 (56.3%)
Bony erosion	12 (37.5%)

3.6 Histopathological Findings

Histopathological examination of synovial tissue demonstrated chronic inflammatory cell infiltrates in all patients (100%). Synovial hyperplasia, fibrosis, and granulation tissue were observed in 81.3%, 59.4%, and 46.9% of cases, respectively. No specimen showed granulomatous inflammation or caseation, thereby excluding tubercular arthritis in all patients.

The histopathological findings are summarized in Table 8.

Table 8. Histopathological Findings

Histopathological feature	Number of patients (%)
Chronic inflammatory infiltrate	32 (100%)
Synovial hyperplasia	26 (81.3%)
Fibrosis	19 (59.4%)
Granulation tissue	15 (46.9%)
Granuloma / caseation	0

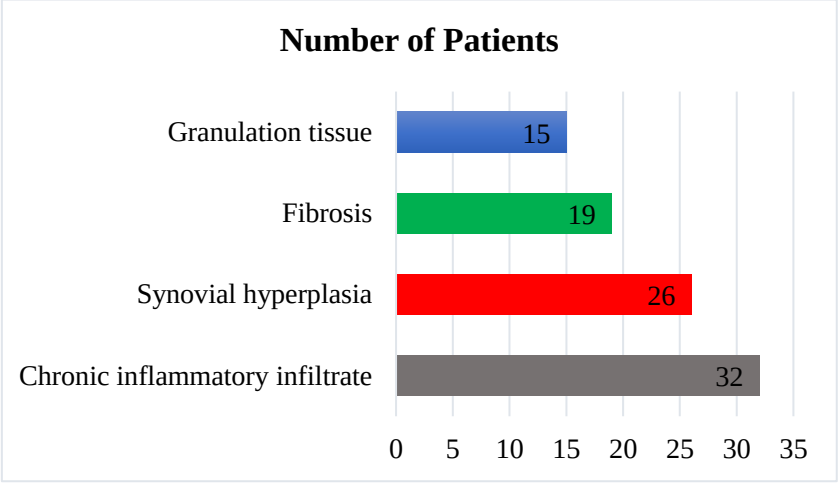

Figure 7. Histopathological Findings

3.7 Treatment and Short-Term Follow-up

All patients underwent open arthrotomy and debridement followed by postoperative antibiotic therapy and initiation of physiotherapy as per institutional protocol. Patients were followed up clinically and radiologically for a **minimum period of 2 months** following surgical intervention.

Short-term follow-up focused on pain relief, reduction of inflammation, improvement in range of motion, and early functional recovery.

3.8 Short-Term Functional Outcomes

Functional outcomes at 2-month follow-up, assessed using modified Moon's criteria, revealed excellent outcomes in 9 patients (28.1%), good outcomes in 13 patients (40.6%), fair outcomes in 7 patients (21.9%), and poor outcomes in 3 patients (9.4%). Overall, 22 patients (68.7%) achieved good to excellent early functional outcomes. These outcomes are summarized in **Table 9**.

Overall, **22 patients (68.7%)** demonstrated **good to excellent early functional outcomes** at short-term follow-up. Patients with fair to poor outcomes were predominantly those with advanced femoral head involvement, associated osteomyelitis, or longer duration of symptoms prior to presentation.

Table 9. Short-Term Functional Outcomes at 2-Month Follow-up

Outcome (Modified Moon's criteria)	Number of patients (%)
Excellent	9 (28.1%)
Good	13 (40.6%)
Fair	7 (21.9%)
Poor	3 (9.4%)
Good to excellent outcomes	22 (68.7%)

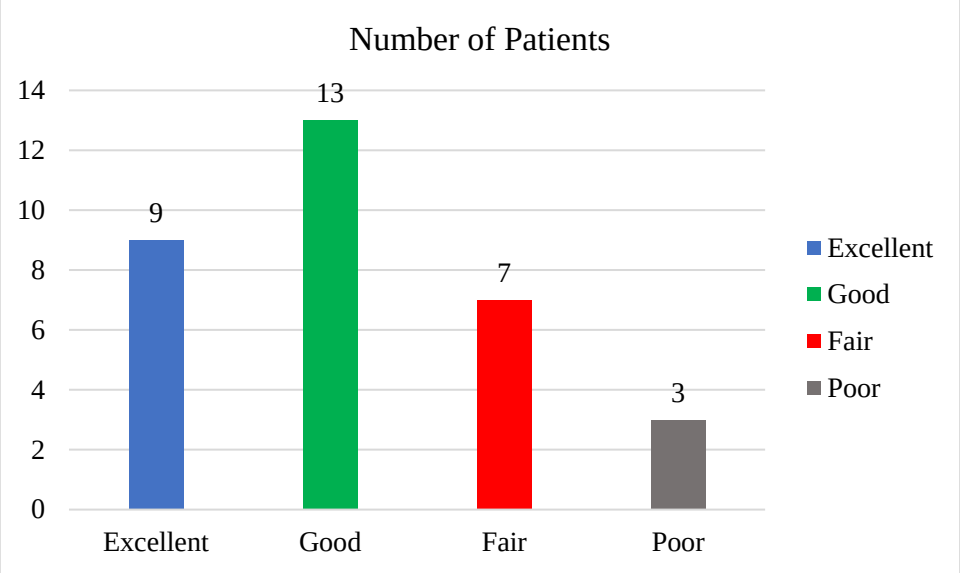

Figure 8. Functional Outcomes

DISCUSSION

Chronic septic arthritis of the hip in children represents a challenging clinical problem, particularly in regions where delayed presentation is common. Unlike acute septic arthritis, which often presents with dramatic clinical and laboratory findings, chronic disease tends to have an indolent course, leading to progressive joint destruction before definitive treatment is initiated (13). The present study highlights the clinicoradiological and histopathological spectrum of paediatric chronic septic arthritis of the hip and evaluates short-term functional outcomes following surgical intervention.

In the present series, the mean age of presentation was 6.8 years, with a male predominance. This demographic pattern is consistent with previous studies that have reported a higher incidence of septic arthritis of the hip in younger children and a slight male preponderance (14). The predominance of limp and restricted hip movements as presenting symptoms, with fever present in less than half of the patients, underscores the diagnostic difficulty associated with chronic disease. Similar observations have been reported in earlier studies, where systemic signs were often minimal or absent in delayed presentations (15).

Radiological evaluation played a crucial role in assessing disease severity in this study. Plain radiographs demonstrated advanced changes in the majority of patients, including joint space narrowing, periarticular osteopenia, and femoral head erosion. However, minimal radiographic

changes were observed in a small subset of patients despite significant clinical symptoms, highlighting the limitations of plain radiography in early or less advanced chronic disease (16). Magnetic resonance imaging proved particularly valuable in defining the extent of intra-articular and extra-articular involvement, detecting associated osteomyelitis, and identifying soft tissue collections not visible on conventional radiographs. These findings reinforce the established role of MRI as the most sensitive imaging modality for evaluating septic arthritis of the hip, especially in chronic and complex cases (14).

Histopathological examination of synovial tissue provided important diagnostic confirmation in all patients. The consistent presence of chronic inflammatory infiltrates, synovial hyperplasia, and fibrosis, along with the absence of granulomatous inflammation, helped differentiate chronic septic arthritis from tubercular arthritis and other chronic inflammatory conditions. This distinction is particularly important in endemic regions, where tuberculosis remains a common differential diagnosis of chronic hip pathology in children (17). The correlation between clinical presentation, radiological findings, and histopathology strengthened diagnostic accuracy and guided appropriate management.

All patients in the present study underwent open arthrotomy and debridement, which remains the preferred treatment modality for chronic septic arthritis of the hip. Intraoperative findings of hypertrophic synovium, purulent material, and cartilage damage in a significant proportion of patients reflect the destructive nature of prolonged infection. Early surgical clearance of infection, combined with appropriate antibiotic therapy and rehabilitation, resulted in satisfactory short-term functional outcomes in the majority of cases. At the 2-month follow-up, nearly two-thirds of patients achieved good to excellent outcomes, indicating effective early control of infection and improvement in joint function.

However, patients with delayed presentation, femoral head destruction, or associated osteomyelitis demonstrated poorer early outcomes. Similar associations between advanced disease at presentation and inferior functional results have been reported in previous studies (13,15). Although the short-term outcomes observed in this study are encouraging, longer follow-up is necessary to assess growth disturbances, residual deformity, and long-term functional status, which are known sequelae of paediatric hip infections.

Overall, this study emphasizes the importance of maintaining a high index of suspicion for chronic septic arthritis of the hip in children presenting with persistent limp or restricted hip movements. Early use of advanced imaging, timely surgical intervention, and histopathological confirmation are key factors in optimizing outcomes. While the present study focuses on short-term results, it provides valuable insight into the early response to treatment in a condition that is often diagnosed late and managed with difficulty.

Limitations of the Study

- The study was conducted at a single tertiary care center, which may limit the generalizability of the findings.
- The sample size was relatively small, restricting detailed subgroup analysis.
- The observational study design limits the ability to establish causal relationships.
- Follow-up was limited to two months, allowing assessment only of short-term outcomes.
- Long-term complications such as growth disturbances and residual deformities could not be evaluated.
- Magnetic resonance imaging was not performed in all patients, which may have led to underestimation of disease extent in some cases.

CONCLUSION

Chronic septic arthritis of the hip in children is a challenging condition that often presents late and is associated with significant joint damage. Early diagnosis requires a high index of suspicion, as clinical and laboratory findings may be subtle in chronic cases. Radiological evaluation, particularly with magnetic resonance imaging, plays a crucial role in defining disease extent, while histopathological examination helps confirm the diagnosis and exclude other chronic conditions.

Timely surgical intervention in the form of open arthrotomy and debridement, combined with appropriate antibiotic therapy and early rehabilitation, results in satisfactory short-term functional outcomes in most patients. However, delayed presentation and advanced disease at diagnosis are associated with poorer early results.

Although the present study demonstrates encouraging short-term outcomes, longer follow-up is necessary to assess growth-related sequelae and long-term hip function. Early recognition and prompt management remain the key factors in reducing morbidity and improving outcomes in paediatric chronic septic arthritis of the hip.

REFERENCES

1. Pääkkönen M. Septic arthritis in children: diagnosis and treatment. Pediatric health, medicine and therapeutics. 2017 May 18:65-8.
2. Xu G, Spoerri M, Rutz E. Surgical treatment options for septic arthritis of the hip in children. African journal of paediatric surgery. 2016 Jan 1;13(1):1-5.
3. Montgomery NI, Epps HR. Pediatric septic arthritis. Orthopedic Clinics. 2017 Apr 1;48(2):209-16.

4. He M, Arthur Vithran DT, Pan L, Zeng H, Yang G, Lu B, Zhang F. An update on recent progress of the epidemiology, etiology, diagnosis, and treatment of acute septic arthritis: a review. Frontiers in cellular and infection microbiology. 2023 May 2; 13:1193645.
5. Kang MS, Jeon JY, Park SS. Differential MRI findings of transient synovitis of the hip in children when septic arthritis is suspected according to symptom duration. Journal of Pediatric Orthopaedics B. 2020 May 1;29(3):297-303.
6. Nakayama M, Naganawa S, Ouyang M, Jones KA, Kim J, Capizzano AA, Moritani T. A review of clinical and imaging findings in tumefactive demyelination. American Journal of Roentgenology. 2021 Jul 19;217(1):186-97.
7. Score AR. Basic Sciences. Indian Journal of Orthopaedics. 2022 Jan;56(1).
8. Le Vavasseur B, Zeller V. Antibiotic therapy for prosthetic joint infections: an overview. Antibiotics. 2022 Apr 5;11(4):486.
9. Nannini A, Giorgino R, Bianco Prevot L, Bobba A, Curci D, Cecchinato R, Peretti GM, Verdoni F, Mangiavini L. Septic arthritis in the pediatric hip joint: a systematic review of diagnosis, management, and outcomes. Frontiers in Pediatrics. 2023 Dec 21; 11:1311862.
10. McMichael BS, Nickel AJ, Christensen EW, Frenn KA, Truong WH, Laine JC, Kharbanda AB. Discriminative accuracy of procalcitonin and traditional biomarkers in pediatric acute musculoskeletal infection. Pediatric Emergency Care. 2021 Dec 1;37(12):e1220-6.
11. Gigante A, Coppa V, Marinelli M, Giampaolini N, Falcioni D, Specchia N. Acute osteomyelitis and septic arthritis in children: a systematic review of systematic reviews. European Review for Medical & Pharmacological Sciences. 2019 Apr 2;23.
12. Vinodh K. Septic Arthritis of the Hip in Children. InThe Hip Joint 2021 Nov 10 (pp. 29-62). Jenny Stanford Publishing.
13. Kiełbowski K, Stańska W, Bakinowska E, Rusiński M, Pawlik A. The role of alarmins in the pathogenesis of rheumatoid arthritis, osteoarthritis, and psoriasis. Current Issues in Molecular Biology. 2024 Apr 19;46(4):3640-75.
14. Feng W, Yao Z, Liu H, Zhu D, Song B, Wang Q. Clinical characteristics of and risk factors for poor outcomes in children with bacterial culture-negative septic arthritis of the hip. Journal of Orthopaedic Science. 2024 Sep 1;29(5):1294-9.
15. Erkilinc M, Gilmore A, Weber M, Mistovich RJ. Current concepts in pediatric septic arthritis. JAAOS-Journal of the American Academy of Orthopaedic Surgeons. 2021 Mar 1;29(5):196-206.
16. Spyridakis E, Gerber JS, Schriver E, Grundmeier RW, Porsch EA, St. Geme III JW, Downes KJ. Clinical features and outcomes of children with culture-negative septic arthritis. Journal of the Pediatric Infectious Diseases Society. 2019 Jul;8(3):228-34.
17. Michalowitz A, Yang J, Castaneda P, Litrenta J. Existing and emerging methods of diagnosis and monitoring of pediatric musculoskeletal infection. Injury. 2020 Oct 1;51(10):2110-7.

How to cite this article: Dr. Ashish Kumar Sriwastava, Dr. Nikhil Maurya, Dr. Sneha Praveen, PAEDIATRIC CHRONIC SEPTIC ARTHRITIS OF THE HIP: AN OBSERVATIONAL CLINICORADIOLOGICAL AND HISTOPATHOLOGICAL STUDY, Asian J. Med. Res. Health Sci., 2026; 4 (1):170-179.
Source of Support: Nil, Conflicts of Interest: None declared.