SCIE DOI: 10.14744/scie.2025.69937
South. Clin. Ist. Euras. 2025;36(4):310-316

Original Article

Garré's Sclerosing Osteomyelitis of Long Bones in Children: Clinical Features, Diagnosis, and Treatment Outcomes

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Submitted: 06.08.2025
Revised: 12.08.2025
Accepted: 02.10.2025

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Keywords: Chronic sclerosing osteomyelitis; Garré's osteomyelitis; pediatric bone infection; long bone inflammation.

ABSTRACT

Objective: To evaluate the presentation, diagnosis, and outcomes of pediatric Garré's sclerosing osteomyelitis of long bones.

Methods: We retrospectively reviewed 11 pediatric cases of long bone Garré's osteomyelitis treated between 2011 and 2019. Clinical, imaging, laboratory, microbiological, and out-come data were recorded, and all patients underwent biopsy for definitive diagnosis

Results: The 11 patients (ages 1–18 years) typically presented with chronic bone pain and minimal or no systemic symptoms. The femur was most commonly affected (5 cases), followed by the tibia (4 cases). Radiographs showed cortical thickening and periosteal new bone formation without osteolysis or abscess. Biopsy confirmed chronic osteomyelitis in all cases with no malignancy. Cultures identified a pathogen in 7 patients (64%): Staphylococcus aureus was most frequent (5 cases), with one Salmonella and one M. tuberculosis. All patients were treated with prolonged antibiotics; 6 also underwent surgical debridement. At follow-up, infection resolved in all patients. One staphylococcal humerus case had a late recurrence requiring repeat surgery, but was ultimately cured. No long-term functional deficits were observed.

Conclusion: Garré's chronic sclerosing osteomyelitis of long bones is an important consideration in children with atypical chronic bone lesions to avoid misdiagnosis as malignancy. Imaging alone can be misleading, and confirmatory biopsy is essential. Appropriate antibiotic therapy combined with surgical intervention when needed results in excellent outcomes, with most patients achieving full recovery. Early recognition and a multidisciplinary approach are key to successful management.

INTRODUCTION

Garré's sclerosing osteomyelitis is a rare chronic form of osteomyelitis characterized by a non-pyogenic, insidious infection that leads to diffuse sclerosis and thickening of bone. First described by Carl Garré in 1893, this condition involves a chronic inflammatory process without pus, sequestrum or fistula formation.[1] It predominantly affects children and adolescents and classically involves the jaw (mandible) in the context of odontogenic infection.[2,3] However, Garré's osteomyelitis is not confined to craniofacial bones; it can also occur in the long bones of the appendicular skeleton, albeit much more infrequently.[4] The most commonly reported sites outside the jaw are the metaphyseal regions of long bones such as the femur, tibia, fibula, humerus, and clavicle.[4] Radiologically, the hallmark is periosteal new bone proliferation – often described as an "onion skin" layering in mandibular cases – along with cortical hyperostosis and medullary canal narrowing. Unlike acute osteomyelitis, the sclerosing form typically lacks overt suppuration or abscess formation.

Clinically, patients with chronic sclerosing (Garré's) osteomyelitis usually present with chronic bone pain and swelling, but minimal systemic signs of infection. The indolent nature of the disease, coupled with prominent bony sclerosis on imaging, means it is often mistaken for other pathologies. In particular, the radiographic appearance can mimic bone tumors (such as osteoid osteoma, osteosarcoma or Ewing's sarcoma) or other chronic bone disorders like fibrous dysplasia.[5] Misdiagnosis can lead to unnecessary delays or interventions; therefore, recognizing this entity is important for both radiologists and treating physicians. A definitive diagnosis of Garré's osteomyelitis requires histopathological confirmation of chronic osteomyelitis and exclusion of malignancy. Biopsy is thus an indispensable step whenever imaging features are ambiguous.[5,6]

The exact etiopathogenesis of Garré's osteomyelitis remains a subject of discussion. Many cases have no organism isolated, and some authors have considered them as a subset of chronic non-bacterial osteomyelitis (CNO) or chronic recurrent multifocal osteomyelitis (CRMO) – autoinflammatory bone conditions.[7] Nonetheless, in other cases a bacterial pathogen is identified, suggesting a low-grade infection as the inciting cause. Staphylococcus aureus is frequently implicated in chronic osteomyelitis in general and has been reported in Garré-type osteomyelitis as well.[5] Less common organisms, including Mycobacterium tuberculosis and atypical bacteria, have also been associated with sclerosing osteomyelitis in isolated reports. The resulting bone reaction is thought to stem from a prolonged smoldering infection that triggers persistent periosteal and endosteal bone formation.

Because of its rarity, most of the literature on Garré's sclerosing osteomyelitis consists of individual case reports or small series. There is a particular paucity of data on long bone involvement in the pediatric population.[8] Here, we present our experience with 11 pediatric patients diagnosed with chronic sclerosing osteomyelitis of the long bones. We describe their clinical and radiologic features, the process of diagnosis (often requiring differentiation from neoplasms), the microbiological findings, and the treatment approaches used. Our aim is to enhance understanding of this uncommon condition and highlight strategies to improve its diagnosis and management. This case series is, to our knowledge, among the largest collections of Garré's osteomyelitis in long bones reported in children, and it provides insights into the outcomes of contemporary treatment in such patients.

MATERIALS AND METHODS

Study Design and Patients: We conducted a retrospective review of all pediatric patients diagnosed with chronic sclerosing osteomyelitis (Garré's osteomyelitis) of the long bones at our tertiary care hospital between 2011 and 2019. The study included patients up to 18 years of age who had clinical and radiological findings suggestive of chronic osteomyelitis and in whom the diagnosis was confirmed by histopathology. A total of 11 patients met these inclusion criteria. Patients with acute (suppurative) osteomyelitis or those with jaw (mandibular/maxillary) involvement were excluded to focus on long bone, nonsuppurative cases. Ethical approval for this study was obtained from the institutional review board of Kartal Dr. Lütfi Kırdar City Hospital Scientific Research Ethical Committe (No: 2025/010.99/18/4, Date: 20/07/2025). The study was conducted according to the Helsinki Declaration.

Data Collection: Using hospital records and imaging archives, we collected detailed information for each patient. Demographic data (age and sex) were recorded, as well as any relevant history of trauma, recent infections, or underlying medical conditions (e.g. immunodeficiency or autoinflammatory disorders). Clinical presentation was assessed, including duration of symptoms and key signs/symptoms such as pain, swelling, erythema, fever, or limp. Laboratory values at presentation were noted (white blood cell count, erythrocyte sedimentation rate, C-reactive protein). Imaging studies (plain radiographs for all patients, with MRI in 8 and CT in 3) were reviewed for features like cortical thickening, periosteal reaction, sclerosis, lytic lesions, or abscess (Fig. 1). The initial radiologic impression or differential diagnosis was recorded.

All patients underwent a bone biopsy of the lesion. Intraoperative findings and histopathology reports were reviewed for evidence of chronic osteomyelitis (e.g. chronic inflammatory infiltrate, fibrosis, new bone formation) and to confirm the absence of malignancy. Biopsy samples were also sent for microbiological culture (aerobic, anaerobic, fungal, and mycobacterial cultures as indicated). Culture results were recorded, including any organisms isolated and their antibiotic sensitivities. In cases with prior antibiotic use, we noted that cultures might be affected.

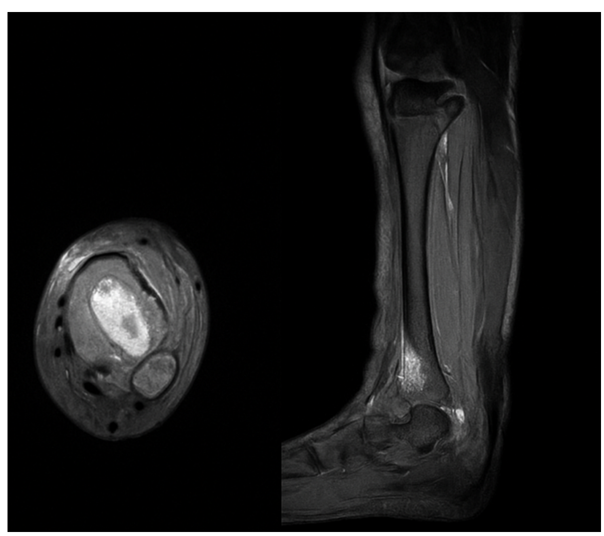

Figure 1. Left side: Axial T1-weighted MRI image, Right side: Sagittal PD-weighted MRI image. This visual illustrates the typical MRI features of sclerosing osteomyelitis including cortical thickening and periosteal reaction, predominantly visible in long bones of pediatric patients.

Treatment and Follow-Up: The treatment modalities for each patient were documented. We noted whether management was medical (antibiotics) alone or combined medical-surgical. For surgical treatment, the type of intervention was recorded – e.g. fenestration (cortical window and intramedullary debridement), curettage, sequestrectomy, or segmental resection. Antibiotic therapies were recorded including agents and total duration. In culture-proven infections, targeted antibiotic regimens were given (for example, anti-staphylococcal antibiotics for S. aureus or multidrug therapy for tuberculosis); in culture-negative cases, broad-spectrum empiric regimens were used covering likely bacteria. Follow-up data were collected to assess outcomes, including resolution of infection (clinical and radiological), any recurrences, and complications such as fracture or growth disturbance. The length of follow-up for each case was also noted.[9]

Data Analysis: This being a descriptive case series, results are presented as counts, percentages, and medians as appropriate. No statistical comparisons were performed given the small sample size. A summary of patient characteristics is provided in Table 1.

RESULTS

Patient Demographics and Presentation: Eleven patients (6 male, 5 female) were identified. Ages ranged from 1 year to 18 years (median ~10 years). Seven patients (64%) were adolescents (≥10 years old) and four were under 10 (including one infant). All patients had an insidious onset of localized bone pain that persisted for weeks to months (median symptom duration 3 months) before diagnosis. Pain was the predominant symptom in every case, often with mild tenderness or swelling over the involved site. Classic signs of acute infection (high fever, erythema, abscess or draining sinus) were absent in all but one case. The exception was the 1-year-old patient, who presented with fever and irritability in addition to limb pain; this patient was later found to have Salmonella osteomyelitis. Two patients had notable comorbid conditions: One had familial Mediterranean fever (an autoinflammatory disease) and another had a history of Henoch-Schönlein purpura. These conditions occasionally contributed to episodic limb pains or inflammatory markers, which initially confounded the clinical picture. A history of antecedent trauma was noted in one case (a 14-year-old boy had a motorcycle accident injuring his leg several months prior), but no other patients had significant trauma before symptom onset.

Anatomical Distribution and Imaging: The distribution of affected bones is summarized in Table 1. The long bones of the lower extremity were most frequently involved. The femur was the single most common site, affected in 5 of 11 cases (45%). Four of these involved the distal femoral metaphysis or metadiaphysis, and one was in the mid-diaphysis. The tibia was the second most common site, in 4 cases (36%). Two tibial lesions were diaphyseal and two were in the distal metaphysis (one of which extended into the adjacent distal fibula). Additionally, 1 case involved the diaphysis of the humerus, and 1 case involved the calcaneus (heel bone). All lesions were unifocal; we did not observe multifocal disease in any patient.

On radiographic examination, all cases showed the characteristic features of chronic sclerosing osteomyelitis. Plain X-rays demonstrated diffuse sclerosis and cortical thickening of the affected bone, often with fusiform enlargement of the shaft and obliteration of the normal medullary canal. Periosteal new bone formation was present in the majority of cases, appearing as layered or solid periosteal reaction along the cortex. For example, one femoral lesion exhibited an "onion-skin" type periosteal layering reminiscent of that seen in Ewing sarcoma or chronic os-

Table 1. Summary of patient characteristics and outcomes

Case	Age (y)	Sex	Bone (site)	Microorganism	Treatment (Abx=antibiotics)	Outcome (follow-up)
1	16	F	Humerus (diaphysis)	*S. aureus* (MSSA)	Abx (8 wk) +fenestration	Recurrence (2y; re-debrided), cured
2	18	M	Femur (mid-diaphysis)	*S. aureus* (MRSA)	Abx (8 wk) + segmental resection/graft	Cured (24 mo)
3	14	M	Tibia (distal) + fibula	*S. aureus* (MSSA)	Abx (6 wk) + fenestration	Cured (18 mo)
4	15	F	Femur (distal metaphysis)	No organism isolated	Abx (6 wk) only	Cured (12 mo)
5	10	M	Femur (distal metaphysis)	*M. tuberculosis*	Anti-TB therapy (6 mo)	Cured (48 mo)
6	13	F	Femur (metaphysis)	No organism isolated	Abx (6 wk) only	Cured (36 mo)
7	17	M	Tibia (diaphysis)	*S. aureus* (MSSA)	Abx (8 wk) + fenestration	Cured (9 mo)
8	7	F	Tibia (diaphysis)	No organism isolated	Abx (6 wk) only	Cured (12 mo)
9	8	F	Calcaneus	*S. aureus* (MSSA)	Abx (6 wk) + curettage	Cured (12 mo)
10	9	M	Femur (metaphysis)	No organism isolated	Abx (6 wk) + fenestration	Cured (6 mo)
11	1	M	Tibia (proximal)	*Salmonella* spp.	Abx (8 wk) only	Cured (6 mo)

MSSA: Methicillin-sensitive Staphylococcus aureus; MRSA: Methicillin-resistant S. aureus. Fenestration: Surgical cortical window and intramedullary debridement. Anti-TB therapy: Standard multi-drug tuberculosis treatment. Follow-up duration is given as months (mo) or years (y).

teomyelitis. Importantly, there were no osteolytic defects, sequestra, or periosteal bone sequestra noted. MRI findings (available in 8 patients) included low to intermediate signal intensity of the marrow on T1-weighted images, high T2 signal with periosteal elevation, and patchy gadolinium enhancement, but no fluid collections or abscesses. These imaging characteristics, although consistent with a chronic osteitic process, led to diagnostic confusion. In 6 patients (55%), the initial radiology interpretation raised suspicion for a neoplasm rather than infection. Differential considerations included osteosarcoma, Ewing sarcoma, osteoid osteoma or osteoblastoma, and in one case, stress fracture. In two instances, radiologists did consider osteomyelitis but recommended biopsy to exclude malignancy. Consequently, all 11 patients underwent bone biopsy for definitive diagnosis.

Laboratory Findings: Laboratory evaluation at presentation was largely unremarkable or only mildly inflammatory in most cases. Inflammatory markers were generally normal or only modestly elevated, consistent with a low-grade infection. CRP and WBC were within normal limits in about half of the patients and only slightly elevated in the others, while ESR was often moderately elevated (typically 30–85 mm/hour). Notably, the infant with Salmonella osteomyelitis had a markedly high CRP (>150 mg/L) during the acute febrile phase. No patients had severe leukocytosis or other laboratory evidence of acute infection. These findings reflect the indolent nature of Garré's osteomyelitis.

Histopathology and Microbiology: Biopsy histopathology in all cases confirmed chronic osteomyelitis, showing dense lymphoplasmacytic infiltrates, marrow fibrosis, and reactive new bone formation. No malignant cells or granulomas (except in one case) were present. In one patient (a 10-year-old boy with a distal femur lesion), histology revealed granulomatous inflammation with caseation necrosis, suggestive of tuberculosis; subsequent cultures and PCR confirmed Mycobacterium tuberculosis in this case.

Microbiological cultures of the biopsy specimens identified an organism in 7 out of 11 cases (64%). Staphylococcus aureus was the most common pathogen, isolated in 5 patients (all methicillin-sensitive except one MRSA). In several of these staphylococcal cases, there was a history of prior transient bone pain or an "acute osteomyelitis" episode that resolved with initial treatment, implying that S. aureus infection had persisted at a low level. One patient (the infant) grew a non-typhoidal Salmonella species on culture – an uncommon cause of osteomyelitis in immunocompetent children. The tuberculous case, as noted, was culture-positive for M. tuberculosis. Four patients had negative cultures. Two of the culture-negative patients had received antibiotics before biopsy, likely contributing to sterile cultures, and the other two may represent either undetected bacterial infection or a non-bacterial osteomyelitic process. Blood cultures (performed in 3 patients who had fevers) were all negative.

Treatment: All patients received appropriate antibiotic therapy. In culture-confirmed cases, targeted antibiotics were administered for approximately 6–8 weeks (e.g. anti-staphylococcal antibiotics for S. aureus, multi-drug therapy for tuberculosis). In culture-negative cases, broad-spectrum empirical regimens were used to cover staphylococci (including MRSA) and Gram-negative organisms for a similar duration. Six patients (55%) underwent adjunct surgical intervention in addition to antibiotics. The most common procedure was a limited cortical fenestration with intramedullary debridement (performed in 4 cases), which involves creating a small cortical window and reaming or curetting out the sclerotic, avascular bone within the medullary cavity. This serves to decompress the bone and improve antibiotic penetration.[5] One patient with an extensive femoral diaphyseal lesion underwent a segmental resection of approximately 4 cm of diseased bone followed by fibular strut grafting to reconstruct the defect. Another patient with a calcaneal lesion had surgical curettage of the sclerotic focus through a small window. The remaining 5 patients improved with antibiotic therapy alone (though all had a diagnostic biopsy, which in some cases may have also provided therapeutic decompression). All surgeries were uncomplicated; notably, no frank pus was encountered intraoperatively, consistent with the non-suppurative nature of these infections.

Outcomes: After a mean follow-up of about 2 years (range 6 months to 4 years), all patients achieved resolution of their osteomyelitis. Clinically, bone pain and any swelling resolved within the initial weeks to months of therapy in every case. By final follow-up, all patients had returned to normal daily activities without pain or functional limitation. In those patients who were athletes or active, full sports participation was resumed with no issues. Inflammatory markers (CRP, ESR) returned to normal in all cases after treatment. Follow-up radiographs demonstrated gradual remodeling of the affected bones. Over 1–2 years, the cortical thickening partially regressed and medullary cavities began to reappear, indicating new healthy bone formation. Some residual sclerosis persisted but was expected to remodel further during the child's growth. Importantly, no progressive bone destruction or new lesions were seen post-treatment.

One patient experienced a recurrence of osteomyelitis. This was a 16-year-old female with a chronic sclerosing lesion of the humerus (Case 1 in Table 1). She initially responded to antibiotics and a fenestration surgery (culture grew MSSA). About 2 years later, she developed pain again in the same site. Imaging showed renewed periosteal reaction and sclerosis. She underwent a repeat surgical debridement; cultures at the second surgery grew Staphylococcus epidermidis (a skin commensal, possibly a new low-grade infection). She was treated with another course of antibiotics and has remained asymptomatic for 18 months since. Aside from this case, no other patient had a recurrence. There were no long-term sequelae observed. No pathologic fractures occurred, and there were no growth disturbances or limb deformities in any patient (the lesions were largely diaphyseal or metaphyseal and our surgical approaches preserved the growth plates). In summary, all 11 children attained full recovery with resolution of infection and return to normal function.

DISCUSSION

Our case series highlights key features of Garré's sclerosing osteomyelitis in children and contributes new data on its involvement in long bones. Although rare, this condition deserves clinical attention as it can mimic more serious diagnoses, including bone malignancies. Consistent with previous literature, our patients were predominantly school-aged children and adolescents (median age around 10 years) with a balanced sex distribution.[10] They presented with localized, indolent bone pain of several weeks to months' duration, often without systemic symptoms. This subtle clinical course frequently delays diagnosis, as pain without fever may be mistaken for benign musculoskeletal complaints.[4]

Radiographically, the femur and tibia were the most frequently involved bones, in keeping with previously reported extragnathic Garré's osteomyelitis. Though the mandible remains the classical site due to odontogenic infections, long bones such as the femur, tibia, humerus, fibula, and clavicle have been increasingly reported in children.[11] In our series, the femur and tibia accounted for 9 out of 11 cases, supporting their predominance among long bone sites. One case involved the humerus, and another the calcaneus, which is rarely affected in this entity. Importantly, all cases were unifocal. No patient exhibited multifocal lesions, which distinguishes Garré's osteomyelitis from chronic recurrent multifocal osteomyelitis (CRMO) or SAPHO syndrome—conditions typically associated with sterile, autoinflammatory bone lesions.[12]

A major clinical challenge in Garré's osteomyelitis is its radiologic resemblance to malignant bone tumors. Over half of our cases were initially misinterpreted as neoplasms based on radiographs or MRI findings, with differential diagnoses including Ewing sarcoma, osteosarcoma, or osteoid osteoma. Features such as layered periosteal reaction and bone sclerosis are not specific and may overlap with neoplastic conditions. Therefore, histopathological confirmation is essential. In our series, biopsy not only confirmed chronic osteomyelitis in all cases but also excluded malignancy. Additionally, biopsy allowed for culture sampling, aiding in targeted antibiotic therapy. We echo the consensus in the literature that early biopsy is critical in evaluating sclerotic lesions of unclear etiology in children to avoid both overtreatment and delayed care.

Microbiological findings in our study shed light on the underlying pathogenesis. In 64% of cases, we isolated a pathogen, with Staphylococcus aureus being the most frequently identified organism. This supports the view that Garré's osteomyelitis often stems from a low-grade bacterial infection rather than a purely sterile inflammatory process. The presence of methicillin-resistant S. aureus (MRSA) in one case demonstrates that even antibiotic-resistant pathogens can manifest as indolent disease. Our culture-positive rate was relatively high compared to prior reports, likely due to adequate biopsy technique and culture protocols.

We also observed two atypical pathogens. One infant had non-typhoidal Salmonella osteomyelitis, an uncommon finding in children without hemoglobinopathies. This highlights the possibility of hematogenous spread from subclinical gastrointestinal sources. Another patient's biopsy revealed granulomatous inflammation with caseation, and culture confirmed Mycobacterium tuberculosis. Although tuberculosis typically causes lytic bone lesions, our patient exhibited mainly sclerotic changes, reinforcing that TB should remain in the differential diagnosis for chronic bone lesions, especially in endemic areas.

Four patients had negative cultures. In two of these, prior antibiotic use may have sterilized the biopsy samples. The remaining two may represent either low-virulence bacterial infections undetected by standard cultures or non-bacterial autoinflammatory osteitis. Interestingly, one of the culture-negative patients had a known autoinflammatory disorder (familial Mediterranean fever), which may have predisposed him to sterile bone inflammation. Nevertheless, all culture-negative cases responded favorably to antibiotic treatment, suggesting that an occult infectious etiology was still likely. In the future, molecular tools such as broad-range PCR or next-generation sequencing could help detect fastidious organisms in similar patients.

Treatment was tailored to each case but followed general principles of chronic osteomyelitis management.[6] All patients received prolonged antibiotic therapy. In bacterial cases, this involved 6–8 weeks of targeted antibiotics. The tuberculosis case received standard 6-month antitubercular treatment. Culture-negative patients were treated empirically with broad-spectrum regimens aimed at S. aureus and Gram-negative organisms. Clinical and radiographic resolution in all patients confirmed the effectiveness of this approach.

Surgical intervention was performed in 6 of 11 patients (55%). The majority underwent fenestration with intramedullary debridement—a technique shown to relieve intraosseous pressure and improve antibiotic penetration. In one severe femoral case, we performed segmental bone resection with fibular graft reconstruction due to near-total medullary obliteration. Another patient underwent curettage of a calcaneal lesion through a small cortical window. In all surgically treated patients, no abscess or frank pus was encountered intraoperatively, consistent with the non-suppurative character of the disease. The remaining five patients improved with antibiotics alone, though they also had biopsy procedures that may have contributed therapeutically through decompression.

None of our patients required multiple surgeries, long-term suppressive antibiotics, or advanced reconstructive procedures beyond a single autograft. This suggests that

Garré’s osteomyelitis, while potentially radiographically alarming, generally responds well to timely and targeted treatment. In particular, our use of conservative surgical approaches—limited debridement rather than extensive resection—proved effective and spared children from more invasive interventions.

Outcomes in our series were excellent. At a mean follow-up of two years, all 11 children were symptom-free, functionally normal, and had returned to age-appropriate activities. Radiographs showed gradual remodeling of the affected bones, with partial resolution of sclerosis and reconstitution of the medullary canal in most cases. Importantly, there were no pathological fractures, limb length discrepancies, or angular deformities. The growth plates were preserved in all cases, likely due to the predominantly diaphyseal location of lesions and careful surgical planning. One patient experienced a late recurrence at the original lesion site two years after initial treatment. She underwent repeat debridement and recovered without further relapse, confirming that even recurrences can be successfully managed.

These findings align with other reports in the literature, which describe chronic sclerosing osteomyelitis as a disease with a favorable prognosis once properly diagnosed and treated.[4] Our recurrence rate of 9% (1 of 11 patients) is within the range reported in similar pediatric case series. The indolent course of the disease typically allows sufficient time for diagnosis before complications such as fracture occur, and the natural healing potential in children facilitates bone remodeling after infection resolution.

There are some limitations to this study. As a retrospective single-center series with a small sample size, our findings may not be generalizable. We also lacked genetic or molecular testing in culture-negative cases to definitively distinguish infectious from autoinflammatory etiologies. However, the uniform treatment response supports a shared clinical pathway and reinforces the utility of our management algorithm in similar clinical settings.

Conclusion

In conclusion, Garré’s sclerosing osteomyelitis of the long bones should be considered in the differential diagnosis of chronic bone pain with radiologic sclerosis in children. Early histopathological evaluation and microbiological culture are essential to differentiate it from neoplasia and identify causative organisms. The combination of appropriate antibiotics and surgical intervention when indicated leads to excellent outcomes. A multidisciplinary approach—engaging radiology, orthopedics, pathology, and infectious diseases—is vital to the timely and accurate diagnosis of this rare but treatable condition.

Ethics Committee Approval

The study was approved by the Kartal Dr. Lütfi Kırdar City Hospital Scientific Research Hospital Ethics Committee (Date: 20.07.2025, Decision No: 2025/010.99/18/4).

Informed Consent

Retrospective study.

Peer-review

Externally peer-reviewed.

Authorship Contributions

Concept: M.S.A.; Design: E.B.; Supervision: E.E.; Materials: E.B.; Data collection &/ or processing: M.S.A.; Analysis and/or interpretation: E.B.; Literature search: M.S.A.; Writing: H.B.C.; Critical review: E.B.

Conflict of Interest

None declared.

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Çocuklarda Uzun Kemiklerin Garré Tipi Sklerozan Osteomiyeliti: Klinik Özellikler, Tanı ve Tedavi Sonuçları

Amaç: Çocukluk çağında uzun kemikleri tutan Garré'nin sklerozan osteomiyelitinin klinik bulgularını, tanı sürecini ve tedavi sonuçlarını değerlendirmek.

Gereç ve Yöntem: 2011 ile 2019 yılları arasında tedavi edilen uzun kemik Garré osteomiyeliti tanılı 11 pediatrik olgu geriye dönük olarak incelendi. Klinik, görüntüleme, laboratuvar, mikrobiyolojik ve sonuç verileri kaydedildi; tüm hastalara kesin tanı için biyopsi yapıldı.

Bulgular: Yaşları 1–18 arasında değişen 11 hastanın tümü kronik kemik ağrısı ile başvurdu; sistemik semptomlar yoktu veya çok hafifti. En sık tutulan kemik femur (5 olgu), ardından tibia (4 olgu) idi. Radyografilerde kortikal kalınlaşma ve periosteal yeni kemik oluşumu izlendi; osteolitik lezyon veya apselere rastlanmadı. Biyopsilerde tüm olgularda malignite olmaksızın kronik osteomiyelit doğrulandı. Kültürlerde 7 hastada (%64) etken saptandı: 5 olguda en sık Staphylococcus aureus, 1'er olguda Salmonella ve Mycobacterium tuberculosis izole edildi. Tüm hastalara uzun süreli antibiyotik tedavisi uygulandı; 6 hastaya cerrahi debridman yapıldı. Takiplerde tüm hastalarda enfeksiyonun düzeldiği görüldü. Humerus tutulumu olan bir S. aureus vakasında geç nüks görülüp tekrar cerrahi gerekmiş, ancak başarıyla tedavi edilmiştir. Uzun vadeli fonksiyonel kayıp izlenmedi.

Sonuç: Uzun kemiklerde görülen Garré tipi kronik sklerozan osteomiyelit, malignite ile karıştırılmaması için atipik kemik lezyonu olan çocuklarda mutlaka düşünülmelidir. Görüntüleme yeterli olmayabilir; tanı için biyopsi şarttır. Uygun antibiyotik tedavisi ve gerektiğinde cerrahi müdahale ile hastaların büyük çoğunluğu tamamen iyileşmektedir. Erken tanı ve multidisipliner yaklaşım başarılı tedavi için kritik öneme sahiptir.

Anahtar Sözcükler: Garré osteomiyeliti; kronik sklerozan osteomiyelit; pediatrik kemik enfeksiyonu; uzun kemik inflamasyonu.