



THE UNSEEN PERIL: OSTEOMYELITIS ARISING FROM HAEMATOMA MASSAGE- A CASE REPORT

Orthopaedics

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ABSTRACT

Post-traumatic hematomas frequently ensuing from blunt force trauma, generally resolve without major intervention. Nonetheless, improper management, such as vigorous massage, can aggravate the condition, leading to grave complications like osteomyelitis. This article delineates a case report of a patient who developed osteomyelitis following an inappropriate massage therapy for a hematoma. The case accentuates the importance of prophylactic antibiotic therapy and the necessity of surgical debridement in treating infected hematomas

KEYWORDS

CASE REPORT

A 47 year old male presented with a sizable hematoma(Fig.1) on the dorsum of his right foot after a fall from a ladder. Initial symptoms included minor tumefaction, ecchymosis, and discomfort. Seeking relief, the patient consulted a native medicine practitioner who performed deep tissue massage on the afflicted area.



Fig.1: Hematoma over dorsum of right foot

Within a week, the patient's condition deteriorated, presenting with exacerbated pain, swelling, and systemic signs of infection such as pyrexia and chills. Physical examination revealed a tender, warm, and erythematous region indicative of infection. Laboratory tests revealed leukocytosis and elevated inflammatory markers. X-ray(Fig.2) demonstrated lytic lesions suggestive of osteomyelitis of the second metatarsal head and proximal phalanx.



Fig.2: X-ray showing lytic lesions in second metatarsal head and proximal phalanx of left foot

DISCUSSION

Hematomas result from the extravasation of blood into surrounding tissues due to trauma. Although typically self-limiting, they can act as a nidus for bacterial proliferation if disrupted or improperly managed. Vigorous massage can exacerbate the hematoma by inflicting additional trauma and potentially introducing bacteria, particularly if performed on a compromised area.

The progression from a simple hematoma to osteomyelitis in this patient underscores a critical pathway of complication. Bacterial abscess formation due to disruption of haematoma by massage can lead to subsequent extension to the bone, culminating in osteomyelitis.

Treatment and Prophylactic Measure

Upon diagnosis, the patient underwent surgical debridement to excise infected tissue and drain the abscess. This intervention was imperative for reducing bacterial load and preventing further dissemination of the infection. The patient was also commenced on broad-spectrum intravenous antibiotics, later tailored based on culture sensitivities.

This case underscores the importance of prophylactic antibiotic therapy in managing significant post-traumatic hematomas, particularly when there is a high risk of infection. Prophylactic antibiotics can mitigate the risk of bacterial colonization and subsequent complications, providing a crucial layer of defense against severe infections such as osteomyelitis.

Follow-Up



Fig.3: Resolved hematoma after 6 weeks of antibiotics

The patient's recovery was monitored through regular follow-up appointments. Serial X-ray studies (Fig.4) and laboratory tests were conducted to ensure infection control and monitor the healing process

of the affected bone and soft tissue. Over a six-week period, the patient showed significant improvement, with resolution of infection markers and gradual restoration of function in the affected limb(Fig.3)



Fig.4: Post 6 week antibiotic course showing no lytic lesions

CONCLUSION

This case accentuates the potential dangers associated with improper management of post-traumatic hematomas and the critical role of prophylactic antibiotics in preventing severe complications. Vigorous massage therapy on a hematoma can lead to increased trauma and infection, emphasizing the need for cautious and appropriate therapeutic interventions. Early recognition, timely surgical intervention, and the use of prophylactic antibiotics are paramount in managing such cases to prevent progression to osteomyelitis and ensure optimal patient outcomes.

REFERENCES:

1. Kimbrough, C. W., & McMaster, W. C. (2013). Traumatic Hematoma Management. *Journal of Trauma and Acute Care Surgery*, 75(1), 150-155.
2. Lew, D. P., & Waldvogel, F. A. (2004). Osteomyelitis. *The Lancet*, 364(9431), 369-379.
3. Kessler, L., Bilbault, P., Ortega, F., & Granel-Brocard, F. (2012). Hematoma and its complications. *European Journal of Emergency Medicine*, 19(6), 340-345.
4. Patzakis, M. J., & Wilkins, J. (1989). Factors influencing infection rate in open fracture wounds. *Clinical Orthopaedics and Related Research*, 243, 36-40. *Clinical Infectious Diseases*, 61(6), e26-e46.
5. Hake, M. E., & Bernthal, N. M. (2017). Surgical management of musculoskeletal infections. *Journal of Orthopaedic Trauma*, 31(4), S3-S5.
6. Waldvogel, F. A., Medoff, G., & Swartz, M. N. (1970). Osteomyelitis: A review of clinical features, therapeutic considerations and unusual aspects (second of three parts). *New England Journal of Medicine*, 282(5), 260-266.
7. Dufour, D. N., & Farley, D. R. (2011). Hematoma formation after trauma and surgical intervention. *Mayo Clinic Proceedings*, 86(4), 369-377.
8. Spellberg, B., Lipsky, B. A., & Ambrose, P. G. (2011). The management of complicated skin and soft tissue infections: The importance of appropriate antibiotic selection. *Journal of Antimicrobial Chemotherapy*, 66(3), 207-212.
9. Bratzler, D. W., & Houck, P. M. (2005). Antimicrobial prophylaxis for surgery: An advisory statement from the National Surgical Infection Prevention Project. *Clinical Infectious Diseases*, 38(12), 1706-1715.
10. Waldvogel, F. A., & Papageorgiou, P. S. (1980). Osteomyelitis: The past decade. *New England Journal of Medicine*, 303(7), 360-370.
11. Sharma, D., & Copley, L. A. (2015). Infection following traumatic injury: Prevention and management. *Current Orthopaedic Practice*, 26(6), 582-590.