

Avascular necrosis of the astragalus (talus) in children with hemophilia: Can it be prevented?. Case report and bibliographic revision”



TOPICS:
ORTHOPEDECS

Authors: Bernal-Lagunas Roberto*, Vélez Ruelas María Antonieta**, Alvarez Iglesias Alejandro^a. *Pediatric Orthopedic Surgeon, **Pediatric Hematology, ^aOrthopedic Surgeon. ^aOrthopedic Hospital “Dr. Victorio de la Fuente”. ** General Hospital “Dr. Gabriel Mancera”. I.M.S.S. Mexico City.

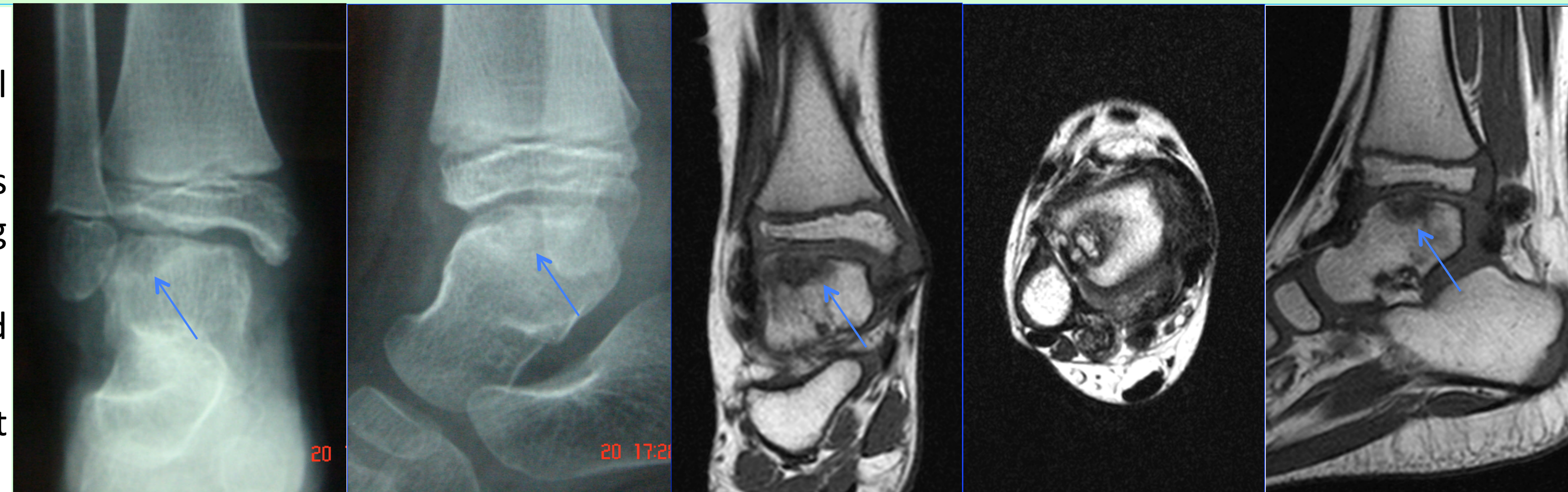
Introduction and objectives:

Avascular necrosis presents in patients with hemophilia, more frequently affecting the femoral head and the talus.

This affection presents in hemophilic arthropathy secondary to osteochondral lesion of the talus that intra osseous bleeding associated which debilitates and fractures the bone structure, causing collapse of the bone.

The loss of integrity of the talus causes the loss of function of the ankle joint, pain and claudication, which may need to be treated with arthrodesis or arthroplasty in young patients.

The objective is to present a clinical case and show that a early diagnosis and treatment prevented the development of an avascular astragalus event.



Materials and methods:

Patient 4 years old with severe hemophilia A and G-II arthropathy right ankle. Secondary prophylaxis. Presents ankle bleedings with a frequency of 4 hemarthrosis per month during two months due moderate trauma (2010).

By x-ray detects lateral osteochondral lesion (osteonecrosis) of the talar body, confirmed by MRI (magnetic resonance imaging).

Ankle arthroscopy is performed with debridement of the lesion and a short immobilization is placed for a lapse of 6 weeks. Postoperative treatment: physical therapy and use of ankle-foot orthosis for 2 years.

Results:

Five years after surgery the evolution was satisfactory, complete mobility of the right ankle, plantigrade support and normal walk. Only one hemarthrosis was present in this 5 years.

MRI al X-ray shows: arthropathy G-II and minimal deformity of the talus. The patient continues in secondary prophylaxis until now.



Conclusions:

The literature report only 3 cases of avascular necrosis of the talus in children. These cases were belatedly diagnosed through identification of the sequelae of necrosis. This case proves that timely detection and treatment of an osteonecrotic lesion of the talus influenced improving local vascularity and preventing its collapse. The stage ankle arthropathy did not change in the 5 year follow-up.

REFERENCES

1. Kemnitz S, Moens P, Peerlinck K, Fabry G. Avascular Necrosis of the Talus in Children with Haemophilia. J Pediatr Orthop Part B, Vol. 11, No. 1, 2002, 73 - 78.
2. Pearce DH, MD, Mongiardi CN, Fornasier VL, MD, Daniels TR. Avascular Necrosis of the Talus: A Pictorial Essay. RadioGraphics Vol. 25, No. 2, 2005, 399 - 410.
3. Lobet S, Detrembleur C, Lantin C, Haencour L, Hermans C. Musculoskeletal Functional impact of custom-made foot orthoses in patients with haemophilic ankle arthropathy. Haemophilia (2012), 18, 227 - 235.
4. Llinás A. The ankle joint. Haemophilia (2010), 16 (Suppl. 5), 121-125
5. Pasta G, Forsyth A, Rodriguez-Merchan EC, Mortazavi J, Silva M, Mulder K, Mancuso E, Peretto O, Heim M, Caviglia H, Solimeno L. Orthopaedic management of haemophilia arthropathy of the ankle. Haemophilia (2008), 14 (Suppl. 3), 170-176
6. Rodriguez-Merchan EC. The haemophilic ankle. Haemophilia (2006), 12, 337-344
7. Arnold W, Hilgartner M. Hemophilic arthropathy. Current Concepts of pathogenesis and management. JBJS Am 59. (1977) 2873-2905

