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Panner's Disease: About A Case

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Case Report

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Abstract: Panner's disease, or osteochondrosis of the lateral condylar nucleus, is an avascular necrosis leading to subchondral bone loss, it was first described in 1927. We report a case of Panner's disease, which has been evolving since 1 month, in a child of 8 years sportsman practicing karate. The evolution was favorable with restitution ad integrum in 8 months after a short anti-inflammatory treatment and a sports rest of 3 months, without any immobilization of the neither elbow nor surgical intervention.
Keywords: Osteochondrosis, Panner's disease, Treatment.

INTRODUCTION

Panner's disease, or osteochondrosis of the lateral condylar nucleus, is an avascular necrosis leading to a loss of subchondral bone fissuring the radio-humeral articular surfaces, occurring in the hyperspottive child, in connection with an overuse of the elbow [1, 2]. It was first described in 1927 by Dane Panner, a Danish orthopedic surgeon [2, 3].

CLINICAL CASE

An 8-year-old right-handed karate sportsman who has been complaining for a month about a pain in his right elbow when he was pumping, accompanied by a screeching sensation in his elbow. The examination found a right elbow painful palpation of the epicondyle, and with a deficit of extension of 15 °, and perception of screeching during the active mobilization of the elbow in support. Standard radiographs show fragmentation with lytic and sclerotic zones of the lateral condylar nucleus producing an eggshell appearance, without visualization of intra-articular foreign bodies. The ultrasound was unremarkable. An anti-inflammatory treatment with a sports rest of 3 months, without immobilization, was prescribed. The evolution was favorable with restitution ad integrum in 8 months.

Fig-1: X-ray of the elbow showing lacunary images of the lateral condylar nucleus giving an "eggshell" appearance

DISCUSSION

Panner's disease is an osteochondrosis of the lateral condylar nucleus, which occurs mainly in the sport boy between 7 and 10 years old, following repeated shocks on elbow extension (gymnastics, tennis, throwing, karate ...) [1].

Its evolution is done in 3 phases: a total necrosis of the nucleus, followed by a revascularization and then its re-ossification. It is manifested by a lateral mechanical pain of the elbow, accompanied by an analgesic flexum. Standard radiography provides the

diagnosis by showing lacunary images of the lateral condylar nucleus, followed by fragmentation, there is no intra-articular foreign body, and cartilage is normal [2, 3].

MRI allows an early diagnosis by showing a hypo-intense zone in T1 located at the center of ossification of the capitellum, associated with an irregularity of the cortex, as well as a high signal in the interlining corresponding to an articular effusion. The use of bone scintigraphy has been reported in only one case and has demonstrated increased activity in the humeral capitellum [4].

Diagnosed at an early stage, the evolution of Panner's disease is usually favorable with restitution ad integrum of the anatomical and radiological aspect of the elbow after conservative treatment based on an anti-inflammatory treatment and a simple sports rest from 3 to 6 months. In the literature, immobilization of the elbow was performed in 53% [5-8]. Heller and Wiltse described the use of a splint at 120 ° elbow flexion for 3 weeks continuously and then 6 months during the day [9], Elzenga [7] advised to use the splint for 4 weeks , while Schumacher immobilized the elbow for 1 year [8].

Surgery becomes necessary in some cases of dissected osteochondritis. Breitkreuz [10] reported arthroscopic debridement followed by plaster immobilization for 4 months as a treatment for Panner's disease.

CONCLUSION

Panner's disease is a pathology related to an overwork of the elbow in the child athlete before the age of 10 years. After a well-respected sporting rest, its evolution is done properly without leaving any consequences. Arthroscopic debridement surgery becomes necessary in the dissected osteochondritis stage.

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