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Bilateral hip dysplasia – a case report in a 66-year-old man

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Abstract

Hip dysplasia in adults occurs when the defect was not treated in childhood or when the treatment was ineffective. The main symptoms include swelling, redness of the joint area and pain, which intensifies during exercise, there may also be limping. In the image examinations, the outline of the joint may be distorted. Hip dysplasia is usually diagnosed by an experienced physician using the combination of symptoms, hip examination and x-ray findings. A computed tomography may also be helpful to diagnose hip dysplasia and give the physician information on any damage to the cartilage and labrum. A 66-year-old man with symptoms of constant pain in the hip area, which intensifies when walking, standing or running. Pain at night during rest and the impression of catching, slamming or blocking. As a result of the study, the features of bilateral dysplasia of the hip joints with large degenerative changes in the joints and periarticular calcifications was observed.

Keywords: hip dysplasia, femoral bone, pelvis, computed tomography

Introduction

The correct relationship between the femoral bone and the pelvis, by contacting the surface of the joints of the head of the bones and the acetabulum, are the most important factors responsible for the proper development of the hip joint, while all pathological relations between the femoral head and the acetabulum of the hip, which we call dysplasia hip joint. Hip dysplasia in adults occurs when the defect was not treated in childhood or when the treatment was ineffective [1-4]. The main symptoms include swelling, redness of the joint area and pain, which intensifies during exercise, there may also be limping. In the image examinations, the outline of the joint may be distorted [5-6]. When the symptoms of dysplasia are not too bothersome, the patient is recommended to rehabilitate and maintain a healthy body weight. It is necessary to abandon some sports. Hip dysplasia is usually diagnosed by an experienced physician using the combination of symptoms, hip examination, and x-ray findings. A computed tomography and MRI may also be helpful to diagnose hip dysplasia and give the physician information on any damage to the cartilage and labrum [7].

Case presentation

A 66-year-old man with symptoms of constant pain in the hip area, which intensifies when walking, standing or running. Pain at night during rest and the impression of catching, slamming or blocking. The patient underwent computed tomography (CT) examination. For diagnostic imaging was used the SOMATOM Definition AS (Siemens) and analyzed with SYNGO Multi-Modality CT Workstation (Siemens). As a result of the study, the features of bilateral dysplasia of the hip joints with large degenerative changes in the joints and periarticular calcifications was observed (Figure 1 A and B).

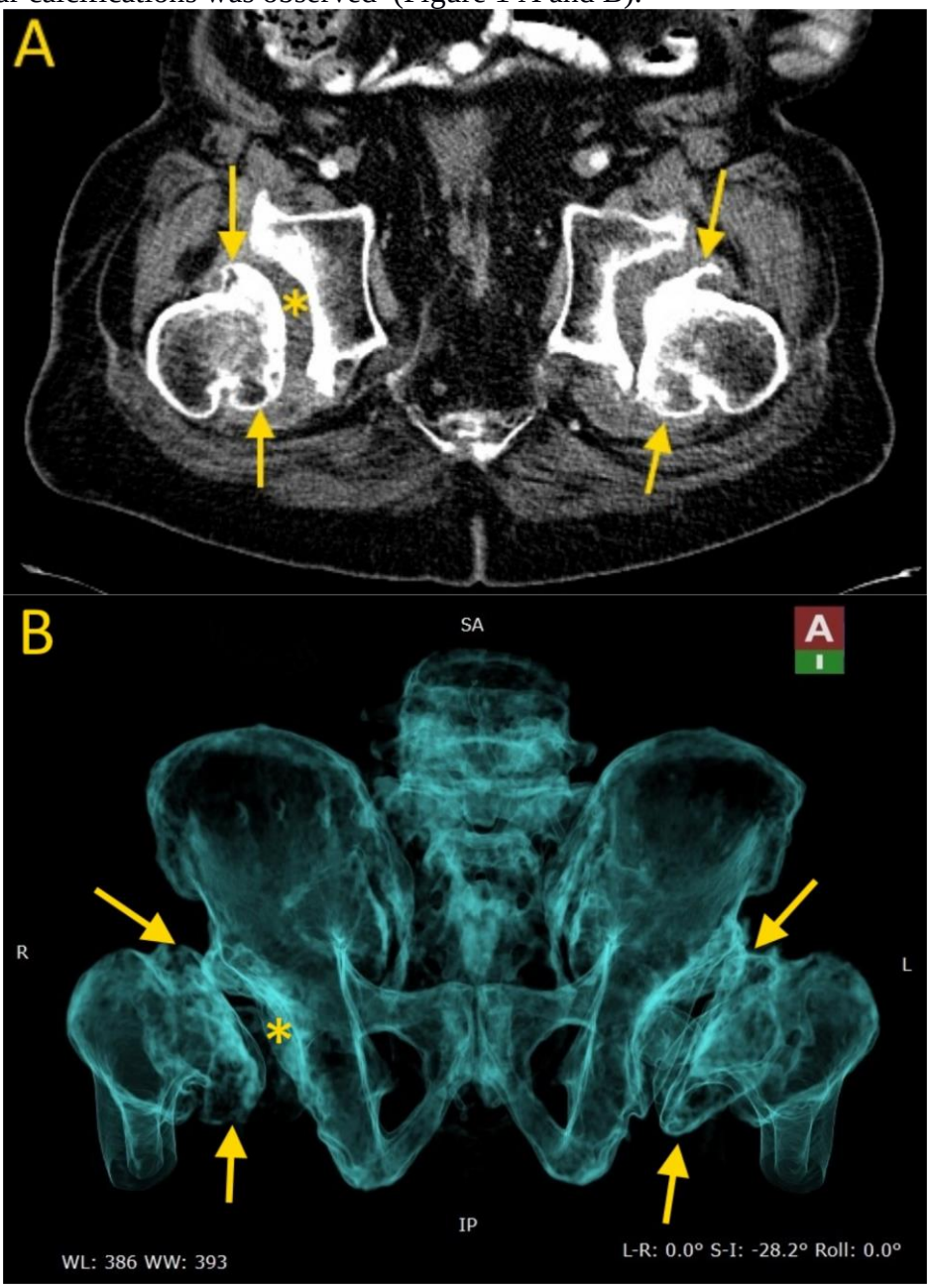

Figure 1. The CT scan detects deformation of the femur head (yellow arrow) and shallow hip socket (yellow asterisk): A – image with axial reconstruction, B – image with 3D reconstruction.

Discussion

CT is useful for characterizing adult hip dysplasia to anterior, posterior, or global deficiency. Typical risk factors for hip dysplasia are said to be female, first born, breech

position, positive family history, left hip, and unilateral involvement. It allows reliable measurements of acetabular coverage, femoral neck anteversion, and the appearance and position of the femoral head. It also allows better characterization of osseous impingement lesions [8]. According to the literature data, hip dysplasia shows a left-sided (64.0%) advantage and unilateral involvement (63.4%). The incidence of hip dysplasia per 1000 live births ranges from 0.06 in Africa in Africa to 76.1 in Native Americans and shows significant variability between racial and geographical groups. The incidence of clinical instability of newborn hips at birth ranges from 0.4 in Africans to 61.7 in Polish Caucasians [9-12]. The treatment of hip dysplasia in young adults remains a challenge. Due to advanced imaging techniques as well as surgical techniques such as peri-osteotomy, the ability to maintain hip and function for a significant period of time is now well established.

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