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Case Report on Perthes Disease in 9 Year Male Child

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ABSTRACT

Perthes disease is a hip joint disease usually occurring in children due to lack of blood supply to the bone. The disease is more commonly seen in male child as compared female child the cause is not known, symptoms usually occur when the disease reaches in later stage, the diagnosis is usually confirmed by radiological investigation X-ray and MRI. It is also seen bilaterally. The disease occurs in young children so any children complaining of hip or joint bone pain in lower limb should always be considered or perthes should be ruled out. The early stage may not be seen in radiological investigation sometimes infection and trauma may also present with the same kind of symptoms.

INTRODUCTION

Perthes disease is defined as the disease of the hip joint in children, where the blood supply to the hip and bone is hampered which ultimately leads to bone death [1]. The bone becomes weak and small break (fracture) develops due to lack of supply of blood in the bone [2]. This causes changes shape of the bone so that it no longer fits into the hip joint socket properly [1]. The blood supply returns after several months [2]. Without treatment, the head of the femur flattens causing pain in the hip, a limp and arthritis in later years [3]. The cause of perthes disease is not known [3]. Perthes disease occurs in children between 2 to 10 years of age [4]. It occurs 4 times more in boy as compared to girl and is associated with a low birth weight, especially boys less than 5.5 pounds [5]. Symptoms do not occur in early stages of perthes disease [4]. The symptoms are knee pain, stiffness, limp, child's movements are reduced, smaller the muscle of the affected leg etc. Perthes disease usually affects one hip [4]. About 1 in 5 children with Perthes disease have the disease in both hips [6]. X-ray is helpful in diagnosis of perthes disease [6]. In the early stages X-ray may not be helpful as the signs of the disease may not have appeared [5]. Magnetic resonance images (MRI) can be used to detect the amount of blood supply in the head of the femur and confirm the diagnosing [7].

CASE REPORT

We present the case of a 9 year male child was brought to the emergency department by his parents complained of inability to bear weight on left leg and pain in left hip since one day. There was a history of on and off pain in left hip since 5 to 6 months. There was no history of trauma and nothing of note in his medical history other than recent Coryzal symptoms. On examination: the child was afebrile with stable vital signs, SLR (Lasegue's sign) of the right leg is 70° and left leg is unable to perform, no redness and other signs of local inflammation, no scars, tenderness present. Left knee and left ankle are within normal limit. The blood sample was taken in the emergency department and revealed a mildly raised erythrocyte sedimentation rate (ESR) of 12 mm/h. All other blood tests including full blood count, C-reactive protein and bone profile were normal. **Ultrasonography of the hip showed:** mild amount of joint effusion along with internal separation within the left hip joint.

The bilateral hips **MRI showed:** Epiphysis of the left femoral head which is small and shows flattening, mild fragmentation. Femoral

head shows mild lateral extrusion, mild broadening of the femoral metaphysis also seen. F/S/O Perthes disease left side (Figures 1-5).



Figure 1: X-Ray pelvis AP View

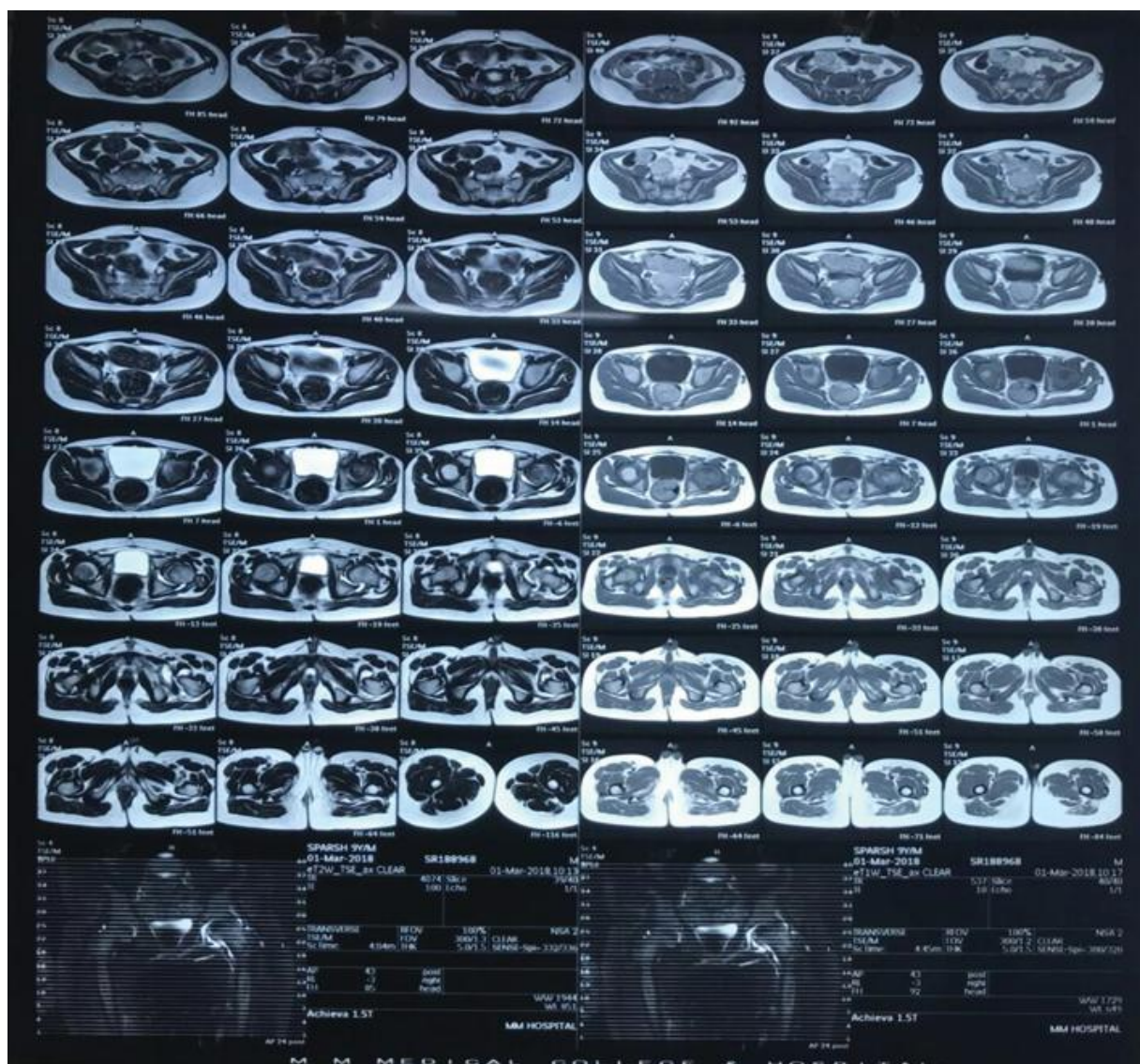


Figure 2: MRI of the Pelvis

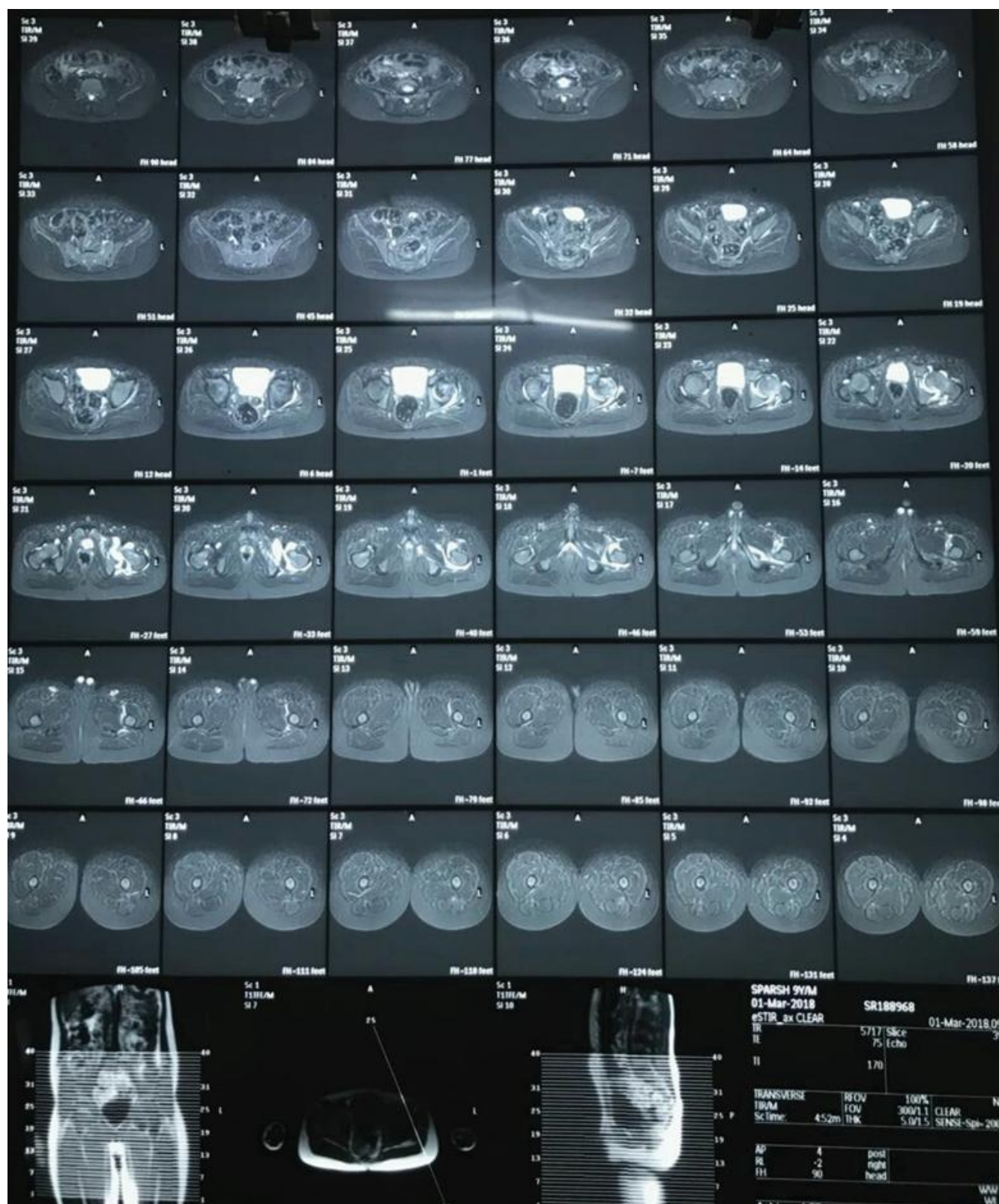


Figure 3: MRI of the Pelvis

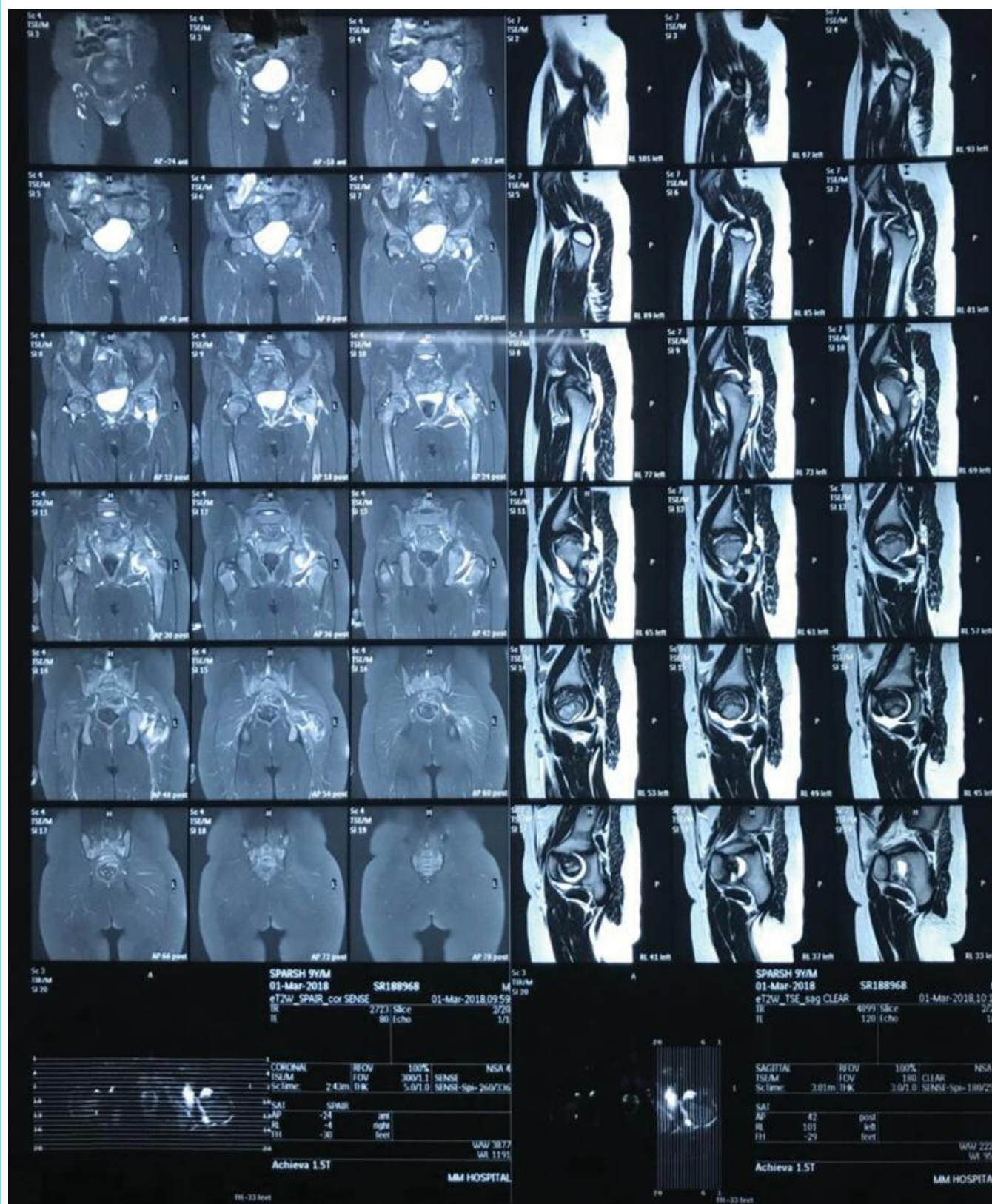


Figure 4: MRI of the pelvis

tendency of recovering is very difficult [9]. Perthes disease should never be ignored in a children presenting with unilateral or bilateral hip pain along with any sort of walking deformity. Early diagnosis and confirmatory diagnosis must be obtained from radiological investigations, although in very early stage the development may or may not be seen [10]. There are also other causes responsible for painful hip with or without radiological findings that includes multiple epiphyseal dysplasia, hypoparathyroidism and rare form of arthritis [10]. For confirmatory diagnosis the history of infection and trauma must be ruled out [10].

CONCLUSION

We thus present a case of perthes disease which also shows the evidences of effusion in the joint at the age of 9 years, the case also shows the evidence of broadening of femoral metaphysic [10]. The child subject complaining of hip joint pain along with weakness should always be ruled out with perthes while other possibilities should also be seen simultaneously [10].

Conflict of Interest: None

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