Radiological and Clinical evaluation of Hemophiliac arthropathy in Egyptian Patients

Abstract

Background In Hemophiliac patients recurrent hemorrhages in the same joint lead to significant hypertrophic synovitis followed by progressive cartilage degradation. Gross arthritic alterations have been evaluated by clinical scoring and plain radiography scores. At present ,magnetic resonance imaging (MRI) seems to be the most accurate radiological technique in joint assessment of the articular and periarticular structures.***Aim*** to assess arthritic changes clinically and radiologically by plain radiography and MRI; and correlate the 3 scoring systems as well as correlate these findings with the number of joint bleeds.***Patients and methods*** The study was conducted on 20 patients with Hemophilia A and B and one patient with type 3 VWD.Twenty-six joints were assessed clinically by the orthopedic score and radiologically by Arnold Hilgartner score and 17 were assessed by MRI as well using the Denver and European scores.***Results*** The main radiological alterations were enlarged epiphysis and osteoporosis while the main MRI findings were cysts and erosions followed by synovial hypertrophy

and hemosiderin deposition .Correlation of the clinical score with the x-ray was insignificant but that with the Denver MRI score was significant(r=0.6 , p= 0.02) as well as that of the plain x-ray and Denver score (r=0.6 , p= 0.007).The number of joint bleeds per year correlated significantly with clinical , plain x-ray and MRI scores (r=0.5,p=0.02; r=0.5,p=0.02 and r=0.6, p=0.03 respectively). ***Conclusion*** The available clinical and radiologic scoring detects the more advanced changes in hemophiliac children. However, MRI is a sensitive diagnostic tool in documenting early changes especially in those with no obvious clinical signs and therefore plays a role for selection of patients for treatment.