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AN UNUSUAL ASSOCIATION BETWEEN JUVENILE PSORIATIC ARTHRITIS, RECURRENT MULTIFOCAL OSTEOMYELITIS AND CHRON'S DISEASE IN A PEDIATRIC PATIENT

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BACKGROUND

Juvenile psoriatic arthritis (JPsA), a subtype of juvenile idiopathic arthritis (JIA), constitutes 5% of JIA. The literature is inconsistent regarding features of JPsA and physicians debate whether it is a distinct entity within JIA. Several features do distinguish these children from those with non-JPsA, including dactylitis and a tendency of the arthritis to involve the wrists and small joints of the hands and feet. Juvenile psoriatic arthritis is a condition that can range widely in presentation and severity. Frank cutaneous psoriasis is not always evident and the extent of articular involvement may vary from mild enthesitis to polyarticular involvement of multiple axial and peripheral joints. Children with significant polyarticular JPsA may have the constitutional features of chronic inflammatory disease, including anorexia and an enhanced risk of other conditions like chronic recurrent multifocal osteomyelitis (CRMO) and Crohn's disease.

CASE REPORT

The patient was classified according to Pediatric International League of Associations for Rheumatology (ILAR) for JPsA. S.B.L., a female patient, was diagnosed with juvenile psoriatic arthritis at 11 years of age (Fig. 1), when the presence of polyarthritis, nail pitting, dactylitis, psoriasis, enthesitis and typical radiographic features were detected. The patient had no known medical allergies and was not taking medication. Her immunizations were up to date. Typical psoriatic plaques (Fig. 2) were characterized as raised and easily palpable, irregular to oval in shape, one to several centimeters in size, well defined, with sharply demarcated boundaries, with a very distinctive rich full red color, all over the patients body. Manifestations of the psoriatic arthritis included warm, tender, inflamed large and small joints and dactylitis. The use of methotrexate and etanercept lead to effective control of clinical manifestations; however, at the age of 13, with clinical, laboratory and imaging developing characteristics typical of CRMO, adalimumab treatment was associated instead of using etanercept and after that a long term and effective clinical improvement was achieved. Despite her clinical improvement for many years, currently, at the age of 17, she has evolved with gastrointestinal intolerances, intestinal subocclusion, calprotectin dosage > 3000 µg/mg and biopsies of the stomach, duodenum, ileum compatible with the diagnosis of Crohn's disease. As she has already been treated with two targeting tumor necrosis factor (anti-TNF) agents besides methotrexate (MTX), this one a conventional synthetic disease-modifying antirheumatic drug (DMARD), in the concomitance of rheumatological and gastrointestinal tract disease (endoscopic and with microscopic activity by active colitis observed in successive colonoscopies), an indication for the use of ustekinumab was proceeded. Ustekinumab is a biological disease-modifying antirheumatic drug (bDMARD) that leads to the blockade of cytokines 12 and 23. It is an approved medication for treating Crohn's disease, as well psoriasis arthritis and incorporated by Brazilian clinical and therapeutics protocols according Brazilian Health's Ministry, 2019. Thus, it was requested that the biological therapy with ustekinumab replaced adalimumab. Such therapeutic change was planned mainly in order to avoid worsening of the gastrointestinal condition and need for a surgical treatment. This medication was initially administered intravenously at a dose of 260 mg and, currently, there is a maintenance schedule with 90 mg subcutaneously every 8 weeks in course. At the time, the patient is in plain nutritional recovery, has normal intestinal functions and no more abdominal pain, arthritis or active skin lesions.

CONCLUSION

Relatively little is known about the epidemiology of juvenile psoriatic arthritis (JPsA), including clinical features associated with the development of arthritis among children with psoriasis and subsequent risk of others inflammatory comorbidities. Children with PsA had a significantly increased risk of clinically important comorbidities, including inflammatory bowel disease, chronic recurrent

multifocal osteomyelitis, uveitis, diabetes and depressive disorder, when compared to controls. Juvenile psoriatic arthritis patients also had a greater risk of developing uveitis, diabetes and depressive disorder when compared to children with psoriasis without arthritis. In the reported case, there are three clinical associations: an unusual association between juvenile psoriatic arthritis, recurrent multifocal osteomyelitis and Chron's disease in a pediatric patient. The day-to-day management of patients with JPsA includes non-pharmacological as well as pharmacological interventions. The number of disease-modifying antirheumatic drugs indicated for JPsA has increased during the last decade. The armamentarium now includes not only conventional synthetic DMARDs (csDMARDs), such as methotrexate, sulfasalazine, leflunomide and tumor necrosis factor inhibitors (TNFi), but also other targeted biological agents (bDMARDs) aimed at different cytokines, such as TNF, interleukin (IL)-12/23 and IL-17A. The targeted synthetic DMARDs (tsDMARDs) that inhibit phosphodiesterase-4 (PDE4) or Janus kinases (JAKs) may be a next pediatric therapeutical approach, like already occurs in adult patients. These multiple newer drugs have been investigated well in short-term, randomized controlled trials using placebo as reference for reasons of drug approval. However, comparative research of different drugs, important for clinical practice, is rather sparse and clinicians need some guidance in decision-making.