We performed a revision of a single center, with fever and serological manifestations of a cluster of symptoms including fever, skin rash, arthritis/arthralgias, lymphadenopathies, with fever and seriological manifestations of an hyperinflammed state often heralding the other manifestations.

We performed a revision of a single centre experience (i.e. patients referred to the Clinical Immunology Unit of the University of Pisa in the last decade), showing a total number of 42 patients (25 male; 17 female) with a diagnosis of adult-onset Still’s disease in clinical follow-up (median follow-up of 7.14 years, ±3.4). The symptoms patients presented were predominantly: fever (100%), multiple lymphadenopathies (90%) and cutaneous rash (25 %) in the presence of serological hyperinflammatory state. These symptoms are frequently predictive factors of MAS (2). According to previous experience (3), in our series, anakinra (at a dosage of 100 mg subcutaneous daily) in association with corticosteroids (pulse steroid or 0.5–1 mg/kg of 6-methylprednisolone, followed by oral low dose corticosteroids) represents the first line treatment in 59.5% of patients (25/42 cases). When compared to patients treated with different drugs such as DMARDs, AOSD patients receiving anakinra presented a higher rate of rapid improvement of clinical and normalisation of inflammatory indexes, with sustained remission.

The identification of a hyper-inflammatory state in SARS-nCoV-2 infection has legitimated the use of immunosuppressant drugs (4). Born as single-centre experiences, major efforts are concentrated on the use of anti-IL6 therapy (tocilizumab, sarilumab) and JAK inhibitors (baricitinib). Respectively, the evidence of higher levels of IL-6 (an acute phase response protein) in the sera of SARS-nCoV-2 positive patients, and the putative antiviral activity of JAK-inhibitors (potentially involving the mechanism of cellular internalisation of the virus) support the use of these therapeutic strategies. However, benefits and long-term results are still controversial. On the other hand, the few data actually present in the literature about anti-IL1 RA in COVID-19 are limited to a randomised trial comparing anakinra to interferon beta-1A or placebo in patients with an advanced state of disease and in need of ventilatory support, adopting and adapting its use from the previous good results in sepsis (5-9). Based on the similarities of the clinical presentation of COVID-19 and Still’s disease, and the safety profile of anakinra demonstrated by our experience in AOSD (well-tolerated and with short half-life), we propose the early use of anti-IL1 RA therapy (anakinra) in the presence of clinical and serological signs of systemic hyper-inflammation state related to COVID-19, at a standard dosage of 100 mg subcutaneously in single administration per day. This therapy in selected cases could be used in association with corticosteroid therapy (but not in the case of non response) and before the failure of non-invasive ventilatory support.

The recognition of the appropriate clinical subset to start anti-IL1 RA therapy is mandatory, and rheumatologic experience could be crucial in the multidisciplinary specialistic approach to COVID-19.

References