



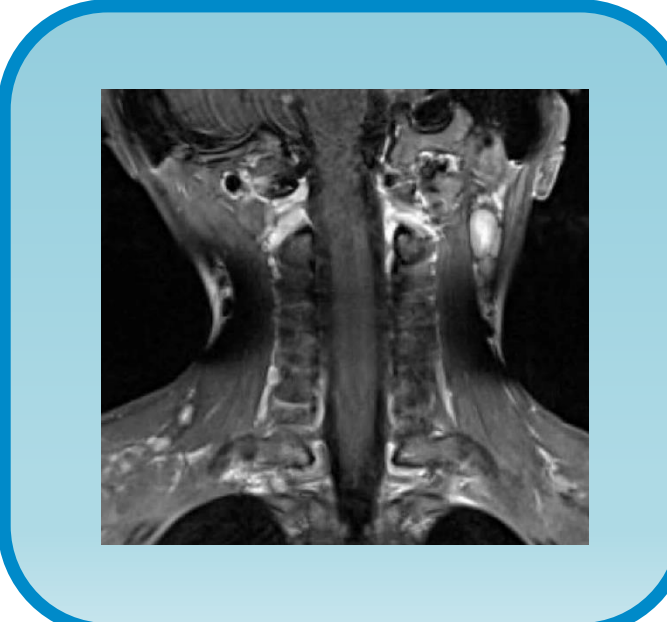
Still burning: Multi-Biologic Therapy in Refractory Systemic JIA – alternative to HSCT?

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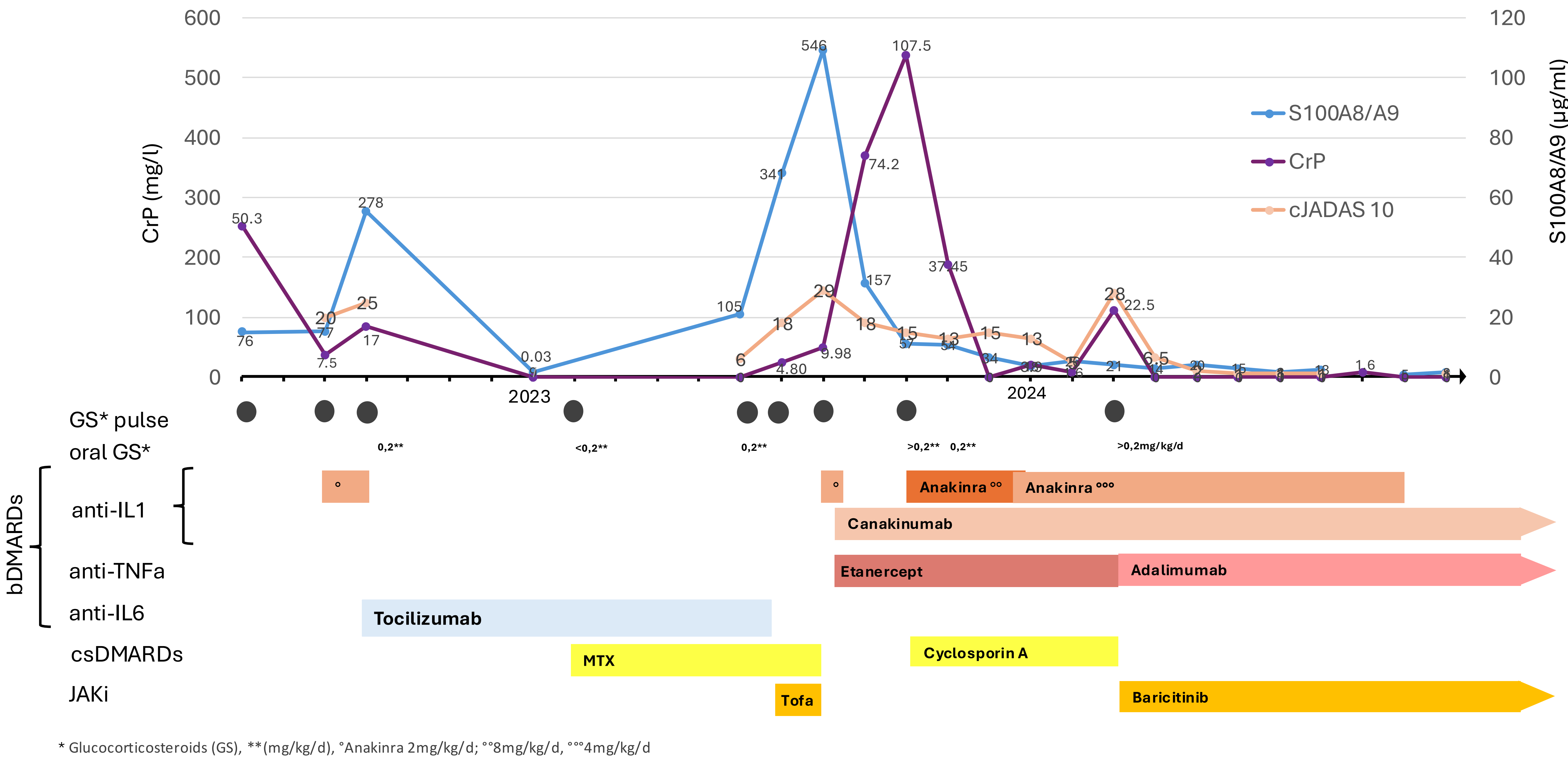
Abstract

Refractory Still's Disease aka systemic JIA, characterized by persistent disease activity despite conventional immunosuppressive therapy—including corticosteroids and IL-1/IL-6 blockade—remains a significant clinical challenge. This retrospective chart review examines the disease trajectory, therapeutic escalation, and immunological monitoring of an 8-year-old female patient with refractory Still's Disease whose parents did not consent to HSCT.



This case underscores the therapeutic potential of multi-biologic strategies in refractory Still's Disease, particularly in scenarios where conventional treatment options are exhausted. The findings contribute to an emerging framework for individualized, combinatorial biologic therapy in Still's Disease, warranting further investigation into optimized sequencing and synergy of targeted immunomodulation.

Disease course & treatment



Current patient outcome

With **Canakinumab, Adalimumab and Baricitinib** the patient currently shows stable, steroid free remission:

- No active joints, cJADAS10: 1
- No side effects at the moment
- Normal S100A8/A9; CrP, sIL2 and ESR
- Safety concerns remain, awareness is key
- next step: further reduction of biologic agents

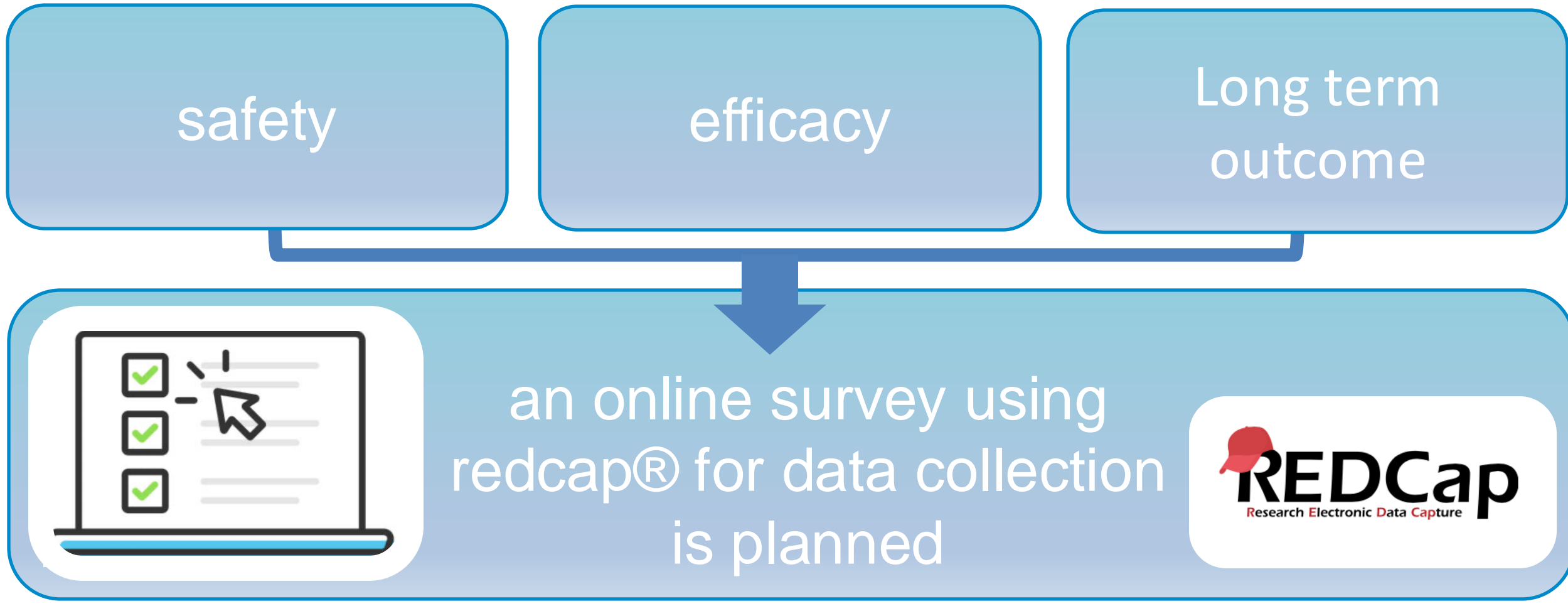
Literature review

Little is known – especially pediatric data is lacking

- 1 Adults with inflammatory bowel disease (IBD)
 - a) Systematic review & meta-analysis: 266 patients, promising efficacy, individual. serious adverse events (SAE) (Alayo 2022)
- 2 Pediatric IBD
 - a) Single center cohort: 30 patients with IBD (15-20y), remission, minimal safety events; de-intensification difficult (Kellar 2024)
 - a) Single center cohort: 16 patients, 75% steroid-free remission, 1 SAE (Dolinger 2021)
 - c) Multi Center Study: 62 IBD patients, 62% remission, 47% with adverse events (AE) (Yerushalmy-Feler 2024)
- 3 Rheumatology – adult data
 - a) Systematic review, 240 patients with RA / PsA: dual vs. mono biologic (plus cDMARD), efficacy & safety varies (more effective vs. increase in SAE) (Furer 2023)
- 4 Rheumatology – pediatric data
 - a) Individual cases (Record 2011, Lee 2017, IL-1 & IL-6 inhibition, sJIA)
 - b) Review: potential new chance for therapy refractory cases (Shenoi 2024, treatment JIA)

Opportunity

Further studies are needed to confirm the following aspects of multi-target biologic therapy in similar cases.



Conclusion

This case underscores the potential of multi-biologic therapy in achieving sustained remission in pediatric patients with refractory Still's Disease unresponsive to conventional treatment. Notably, this approach may serve as a viable alternative in cases where hematopoietic stem cell transplantation is contraindicated or unavailable, emphasizing the need for further investigation into optimized combinatorial biologic strategies.

Perspectives of multi-target biologic therapy:

- Opens a wide range of options in therapy-refractory cases of (s)JIA
- Maybe a steroid sparing therapeutic option
- More data is needed to analyse its safety
- A survey will be implemented to investigate this further