Objectives: When the histopathology coincides with the diagnosis of both IgG4-RD and CD, it is hard to depart the two disease entity utterly. It's unknown whether it is IgG4 related CD or "secondary" IgG4-RD of multicentric CD, here we call it IgG4-CD provisionally. To our knowledge, no comparative study of IgG4-CD and IgG4-RD has yet been published. In this study, we aim to review the clinical feature of IgG4-CD.

Methods: This study is based on a retrospective analysis of a prospectively acquired database. IgG4-CD were defined histopathologically in patients who fulfilled the diagnosis of both IgG4-RD and CD. Forty five definite IgG4-RD patients were recruited as control. Clinical features including organ involvement, serum IgG4, IgG, IgE, ESR and CRP levels of all the participants were collected and analysed statistically.

Results: Fifteen patients (2.8%) out of 534 patients with IgG4-RD in China's largest prospective IgG4-RD and Mimicry cohort fulfilled the definition of IgG4-CD. There were 14 males and 1 female, mean age was 47±18 years, and the median disease duration before diagnosis was 12 (1–132) months. Eight patients have allergic history. IgG4-CD patients had more lymph node involvement (100% vs 57.8%, $p<0.01$), while IgG4-RD patients had more submandibular (33.3% vs 77.1%, $p<0.01$) and parotid gland (13.3% vs 40.9%, $p<0.05$) affected. IgG4-CD patients had significantly higher levels of ESR (mm/h), CRP (mg/L), IgG (g/L), IgG1 (g/L), IgG3(g/L), IgG4(mg/dL), and IgE (g/L) [76.50 (5.00–129.00) vs 17.00 (2.00–89.00), 5.39 (0.54–134.00) vs 1.6 (0.08–113.74), 35.28 (9.76–69.00) vs 19.36 (7.46–61.00), 11.2 (6.84–41.00) vs 8.07 (4.08–16.70), 1.55 (0.19–3.20) vs 0.53 (0.09–2.00), 1590.00 (133.00–6420.00) vs 1070.00 (152.0–6100.00), 807.5 (215.00–2967.00) vs 214.00 (20.40–2437.00), respectively. $p<0.05$). Except for one patient refused to receive drug therapy untreated, the remaining patients with IgG4-CD all received glucocorticoid (GC) treatment. Patients with multi-organ involvement or in severe inflammatory condition were treated with both GC and immunosuppressive agents, those who with active disease but resistant to above regimen accepted biologics such as rituximab. All patients with IgG4-CD exhibited favourable outcomes.

Conclusions: Both IgG4-RD and CD can involve multiple organs. There are a small group of patients who had clinical and pathological characteristics of both CD and IgG4-RD showed better clinical outcome. Long-term prognosis of these patients, the relationship of CD and IgG4-RD are waiting to be further elucidated.

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Acknowledgements: None.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3479

SATURDAY, 16 JUNE 2018

Diagnostics and imaging procedures

SAT0630

AGREEMENT BETWEEN PATIENT-REPORTED SWOLLEN AND TENDER JOINTS, CLINICAL EXAMINATION AND SYNOVITIS DETECTED BY ULTRASONOGRAPHY IN RHEUMATOID ARTHRITIS PATIENTS AT THE TIME OF PATIENT-REPORTED FLARE

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Background: In Rheumatoid Arthritis (RA), patient-reported tender joints (PrTJ) correlate better with clinical examination than patient-reported swollen joints (PrSJ).¹ Clinical examination has inferior sensitivity to detect synovitis compared to ultrasonography (US).² However, data is sparse about these findings at the time of patient-reported flare (PRFI).

Objectives: To investigate agreement between PrSJ, PrTJ, clinically detected swollen and tender joints (cSJ and cTJ), and inflammation by Colour Doppler (CD) US in RA patients at the time of PRFI.

Methods: 80 consecutive rheumatoid-factor and/or anti-cyclic citrullinated peptide antibody positive RA patients with DAS28-CRP<3.2 and no swollen joints at baseline were during a one-year follow-up period requested to contact the hospital in case of a hand flare according to patients' perspective. At the flare visit, patients indicated PrSJ and PrTJ, and underwent examination for cSJ and cTJ, and US of

bilateral wrists (wrist joints and six extensor tendon compartments), 1–5 metacarpophalangeal joints (MCP) and 1–5 proximal interphalangeal joints (PIP). CD synovitis and tenosynovitis were graded 0–3 according to EULAR/OMERACT scoring system³ and joints and tendon sheaths with CD ≥ 1 were considered positive. Percentage agreement and Cohen's kappa were calculated between PrSJ, PrTJ, cSJ, cTJ and CD in joints and tendon sheaths.

Results: Thirty-six percent (29/80) of the RA patients reported a hand flare (69% female, mean age 65 years, median DAS28-CRP 1.8, at baseline). At flare, mean (±SD) number of PrSJ, cSJ, PrTJ, cTJ and CD positive joints were 2.7 (2.86), 1.5 (1.02), 4 (3.04), 4 (3.46) and 1.8 (1.31), respectively. For swelling, there was slightly superior agreement with CD for cSJ than for PrSJ, except for wrist tenosynovitis where patients agreed more frequently with CD than clinical examination did (table 1). Highest percentage agreement was seen for PIP, followed by MCP. Agreement, as assessed by kappa, was poor to fair, ranging from –0.009 to 0.33. Swelling in MCP and PIP joints, by patients and clinicians, and swelling in the wrist by clinician showed better agreement with CD than tenderness did.

Abstract SAT0630 – Table 1. Concordance between patient-reported and clinically examined swollen and tender joints versus CD at the time of patient-reported flare

Joint	No of joints examined	Comparison between	+/+	+/–	–/+	–/–	% agreement
Wrist	n=58	Clinical swelling vs CD synovitis	6	10	11	31	64
		Clinical swelling vs CD tenosynovitis	4	12	4	38	72
		Patient-reported swelling vs CD synovitis	5	13	12	28	57
		Patient-reported swelling vs CD tenosynovitis	6	12	2	38	76
		Clinical tenderness vs CD synovitis	5	11	12	30	60
		Clinical tenderness vs CD tenosynovitis	4	12	4	38	72
		Patient-reported tenderness vs CD synovitis	5	11	12	30	60
		Patient-reported tenderness vs CD tenosynovitis	5	11	3	39	76
MCP	n=290	Clinical swelling vs CD synovitis	0	18	27	245	85
		Patient-reported swelling vs CD synovitis	3	34	24	229	80
		Clinical tenderness vs CD synovitis	7	47	20	216	77
		Patient-reported tenderness vs CD synovitis	4	45	23	218	77
PIP	n=290	Clinical swelling vs CD synovitis	0	8	9	273	94
		Patient-reported swelling vs CD synovitis	0	19	9	262	90
		Clinical tenderness vs CD synovitis	3	30	6	251	88
		Patient-reported tenderness vs CD synovitis	1	38	8	243	84

CD: Colour Doppler; MCP: metacarpophalangeal joint; PIP: proximal interphalangeal joint.

Conclusions: Thirty-six percent of the RA patients reported flares in the hand during one year follow-up. Numbers of joints affected by swelling, tenderness or positive CD sign were low. Limited concordance between US, patient-reports and clinical examination suggests that these domains reflect different and potentially complementary aspects of inflammation in patient-reported flare.

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Acknowledgements: The study was supported by a grant from the Danish Rheumatism Association, the University of Southern Denmark, the Region of Southern Denmark and Knud and Edith Eriksens' Commemorative Fund.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3553