

According to our results, self-reported adherence appears to be a cost and time effective method to care for patients.

References:

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AB1209 A SYSTEMATIC REVIEW ON THE EFFECT OF DMARDS ON FERTILITY IN RHEUMATOID ARTHRITIS

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Background: Patients with rheumatoid arthritis (RA) seem to experience a diminished fertility. Reasons for this lowered fertility are insufficiently defined and probably multifactorial. Although the effect of DMARDs on pregnancy outcomes have been studied, there is a lack of data on the effect of DMARDs on the fertility of patients with RA.

Objectives: To evaluate all studies that concern an effect of DMARDs on the fertility of men and women with RA in a systematic review.

Methods: A search was conducted at 18/10/2019 in three databases including Embase, Pubmed (Medline) and Web Of Science with specific search strings for each database, constructed with the help from a health sciences librarian. We included studies involving women or men diagnosed with RA, of fertile age (18-45years) and on a DMARD therapy, with as outcome a fertility parameter. Systematic reviews, meta-analyses, case reports, case series and animal studies were excluded. Studies not in English or Dutch or written more than 15 years ago were excluded. Article selection was firstly based on title/abstract (double blind, two researchers, LB and IS) and then full text (two researchers, LB and IS). In case consensus could not be reached, a third researcher (DDC) was consulted. The references of included articles were reviewed ("snowballing") to include and minimize the missing articles. A quality check of the included full text papers was performed using the CASP Appraisal Checklists. A chart was made based on outcomes of interest.

Results: After duplicate removal, 9030 articles were found. After title/abstract screening, 82 articles remained. After full text screening, 4 articles could be retained. No additional studies were found through snowballing. Only studies about women could be included, as the evidence found for men was all in papers with exclusion criteria for our systematic review (e.g. case reports). Table 1 summarizes these papers. The included studies investigated the following DMARDs: methotrexate (MTX), certolizumab pegol (CZP), etanercept (ETN) and sulfasalazine (SSZ). No detrimental effects of these DMARDs on fertility, defined as time-to-pregnancy (TTP), anti-Müllerian hormone serum level or presence of a history of infertility, were reported.

Conclusion: This systematic review underlines the knowledge gap on the effect of DMARDs on fertility in human studies. Only 4 studies on women, and no studies on men were found. In the 4 included studies, DMARD treatment, even with MTX in contrast to general belief, had no harmful effect on fertility, probably because disease activity was better controlled with DMARD therapy. However, effects of other RA medication such as NSAIDs were excluded. More research is needed to improve guidance for patients with RA with a child wish.

Table 1. Characteristics of studies included in the systematic review

Authors	Location	Sample	DMARD	Outcome	Method	Design	Result
Akintayo et al. 2018	Nigeria	50 women with RA and 50 women without RA	MTX	Infertility or history of infertility	Interviewer-administered questionnaire	Retrospective study	MTX was associated with a negative history of infertility
Shimada et al. 2019	Japan	25 pregnancies in 19 patients with RA	CZP and ETN	TTP (time to pregnancy)	medical records	Retrospective study	bDMARD treatment shortened the TTP
Brouwer et al. 2013	The Netherlands	72 women with recent-onset RA compared to 509 healthy women	MTX	Level of serum AMH	medical records, serum samples (2 time points)	Retrospective study	AMH levels were not lower with MTX.
Brouwer et al. 2014	The Netherlands	245 women with RA	MTX and SSZ	TTP	Questionnaires and interviews	Prospective cohort study	MTX and SSZ did not prolong TTP

RA = Rheumatoid Arthritis; MTX = Methotrexate; TNFi = Tumor Necrosis Factor inhibitor; CZP = Certolizumab pegol; ETN = Etanercept; SSZ = Sulfasalazine; TTP = Time to Pregnancy; DMARD = Disease Modifying Antirheumatic Drug; AMH = Anti-Müllerian hormone

AB1210 THE IMPACT OF EXAMINATION STRESS ON AUTOIMMUNE DISEASES AMONG UNIVERSITY STUDENTS

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Background: Stress is a risk factor of various diseases including autoimmune diseases. Autoimmune diseases are one of the leading causes of morbidity in young adults. ⁽¹⁾ Examination stress is a main concern nowadays due to the study style, lack of preparation, doctor- student relationship and family pressure. ⁽²⁾ The previous studies declared that stress may causes neuroendocrinal changes leading to immune dysregulations and cytokines production. ⁽³⁾

Objectives: The aim of study is to scope the light on the importance of stress as a predisposing factor in autoimmune disease flares particularly Examination stress.

Methods: A three-year (2017-2019) cross-sectional prospective study conducted on 1365 students who presented to the Alexandria University rheumatology clinic during examinations. Clinical assessments, routine investigations, activity markers, activity indices, stress and anxiety questionnaires and perceived stress scale (PSS) were applied to all patients during consecutive visits.

Results: Through 5800 visits in three years during examination sessions, patients age ranged from (17 -25) years with 76% females and 24% males. They grouped into SLE (31.35%), Rheumatoid arthritis (RA) (37.28%), Fibromyalgia (13.91%), FMF (2.63%), Ankylosing Spondylitis (1.75%), Psoriatic arthritis (0.73%), systemic sclerosis (0.58%), and undifferentiated connective tissue (11.73%). According to SLE patients, 43.92% were newly diagnosed whilst 54.16% of previously diagnosed SLE presented with Flare in particular lupus nephritis (56.33%), arthritis (43.22%), hematological (49.76%) and serositis (21.36%). Interestingly, RA patients who newly diagnosed were 35.16% of total RA patients while 42.42% of previously diagnosed RA patients presented with moderate and high DAS-28 due to in compliance with treatment (64.37%) of patients, (11.53% on biological, 88.47% on conventional treatment). In addition, (49.36%) of FMF presented in recent attacks. It was also found that Arthralgia, bone aches and sleep deprivation are the main complaints. Concerning, A High perceived stress scale (PSS) was associated with High DAS28 and SLEDI-2K scores. ($r_s = 0.723, 0.865$) ($P < 0.001$)

Conclusion: Examination stress is one of triggering factor for autoimmune disease flares. It is associated with high disease activities and ruthless outcomes.

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AB1211 IMMUNE-RELATED ADVERSE EVENTS IN PATIENTS RECEIVING PD-1/PD-L1 INHIBITORS: PRELIMINARY RESULTS FROM A PROSPECTIVE COHORT STUDY

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