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Supplementary file 1

Table S1. Search strategy

Databases	Search terms
Cochrane	**ID Search Hits** #1 MeSH descriptor: [Heart Conduction System] explode all trees n=919 #2 MeSH descriptor: [Arrhythmias, Cardiac] explode all trees n=10357 #3 MeSH descriptor: [Electrocardiography] explode all trees n=9020 #4 MeSH descriptor: [Interatrial Block] explode all trees n=1 #5 (electric* NEXT (activity* or function* or delay)) OR (electric*) OR (electromechanical NEXT (activity* or function* or delay*)) OR (electromechanical*) n=23556 #6 (P NEXT (dispersion* or wave* or indices or indexes)) OR (QT*) OR (QT NEXT (dispersion* or interval* or "variability indices" or indexes)) OR (conduction* NEXT (time or delay*)) OR (ventricular*):ti,ab,kw OR (atrial*):ti,ab,kw n=48699 #7 (T wave) OR (T-wave) OR (QRS) OR (QRS NEXT (complex or duration)) OR ("QTc interval") OR ("QT(c)") n=8074 #8 MeSH descriptor: [Polycystic Ovary Syndrome] explode all trees n=1705 #9 (#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7) AND #8 n=23
PubMed	((((((((((((((((((("Electrophysiologic Techniques, Cardiac"[Mesh]) OR ("Electrocardiography"[Mesh])) OR ("electric* activity")) OR (electric*)) OR ("Heart Conduction System"[Mesh])) OR (("Cardiac Conduction System Disease"[Mesh])) OR (electromechanical)) OR ("conduction delay")) OR (“conduction time”)) OR ("Arrhythmias, Cardiac"[Mesh])) OR ("p wave")) OR ("p-wave")) OR (QT*)) OR ("P dispersion")) OR ("QT dispersion")) OR (QRS)) OR ("T wave")) OR ("T-wave")) OR (atrial)) OR (ventricular)) OR ("left atrium")) OR ("Atrial Fibrillation"[Mesh])) AND (("Polycystic Ovary Syndrome"[Mesh]) n=121
Scopus	TITLE-ABS-KEY ("electric*" OR "Electrocardiograph*" OR "Electrocardiogram" OR "ECG" OR "EKG" OR "electromechanic*" OR "p wave" OR "p-wave" OR "cardiac conduction" OR "heart conduction" OR "conduction delay" OR "conduction time" OR "conduction system" OR "Arrhythmia" OR "Arrhythmias" OR "atrial" OR "ventricular" OR "Atrial fibrillation" OR "Atrial flutter" OR "QRS" OR "QT" OR "QTc" OR "P dispersion" OR "QT dispersion" OR "PWD" OR "QTd" OR "T wave" OR "T-wave" OR "left atrium") AND TITLE-ABS-KEY (PCOS OR "Polycystic ovar* syndrome" OR "Polycystic ovar* disease") n=589
Web of Science	((((((((((((((((((((((((((ALL=(electric*)) OR ALL=(electrocardiograph*)) OR ALL=(ECG)) OR ALL=(EKG)) OR ALL=("conduction time")) OR ALL=("conduction delay")) OR ALL=(electromechanical)) OR ALL=("conduction system")) OR ALL=("cardiac conduction")) AND ALL=("heart conduction")) OR ALL=("P wave")) OR ALL=("p-wave")) OR ALL=("P

	dispersion")) OR ALL=("P-dispersion"))) OR ALL=("p dis")) OR ALL=(QT)) OR ALL=(QTc)) OR ALL=(QRS)) OR ALL=(atrial*)) OR ALL=(ventricular*)) OR ALL=("atrial fibrillation")) OR ALL=(QTd)) OR ALL=("QT dispersion")) OR ALL=("QT dis")) OR ALL=("T wave")) OR ALL=("T-wave")) OR ALL=(arrhythmia*)) OR ALL=("interatrial block")) AND ALL=("Polycystic ovar* syndrome" OR "Polycystic ovar* disease" OR PCOS) n=144

Table S2. Studies excluded and reasons for their exclusion. It indicates studies excluded after critical appraisal and reasons for excluding each study

Author's Name, Year of publication	**Name of the Article**	**Reason of Exclusion**
Musa Aslan et al(1), 2019	Assessment of Cardiac Electrical Activity in Lean and Obese Patients with Polycystic Ovary Syndrome	There is no control groups to be compared with PCOS cases.
Faramawi et al(2), 2020	Metabolic syndrome and P-wave duration in the American population	Only a part of cases with Metabolic Syndrome had PCOS, not the whole study population.
YASAR et al(3), 2009	P-Wave Duration and Dispersion in Patients with Metabolic Syndrome	Only a part of cases with Metabolic Syndrome had PCOS, not the whole study population.
Wang et al(4), 2014	P wave dispersion and maximum duration are independently associated with insulin resistance in metabolic syndrome	Only a part of cases with Metabolic Syndrome had PCOS, not the whole study population.
Topaloglu et al(5), 2020	Is there association between QRS-T angle, and hormonal and sonographic features in polycystic ovarian syndrome?	QRS-T angle does not fit our inclusion criteria for QRS or QT indices. We aimed to assess conduction time of cardiac electrical waves.
Oliver-Williams et al(6), 2020	Polycystic ovary syndrome as a novel risk factor for atrial fibrillation: results from a national Danish registry cohort study	This paper reported the risk of atrial fibrillation incidence in PCOS which does not fit our inclusion criteria.

1. Aslan MM, Atıcı A, Cevrioğlu AS. Assessment of Cardiac Electrical Activity in Lean and Obese Patients with Polycystic Ovary Syndrome.
2. Faramawi MF, Delhey L, Abouelenein S, Delongchamp R. Metabolic syndrome and P-wave duration in the American population. Annals of Epidemiology. 2020;46:5-11.

3. Yasar AS, Bilen E, Bilge M, Ipek G, Ipek E, Kirbas O. P-wave duration and dispersion in patients with metabolic syndrome. Pacing and clinical electrophysiology. 2009;32(9):1168-72.
4. Wang W, Zhang F, Xhen J, Chen X, Fu F, Tang M, et al., editors. P-wave dispersion and maximum duration are independently associated with insulin resistance in metabolic syndrome. Annales d'endocrinologie; 2014: Elsevier.
5. Topaloğlu Ö, Çimci M, Yoloğlu S, Şahin İ. Is there association between QRS-T angle, and hormonal and sonographic features in polycystic ovarian syndrome? Eur Rev Med Pharmacol Sci. 2020;24(13):7372-80.
6. Oliver-Williams C, Vassard D, Pinborg A, Schmidt L. Polycystic ovary syndrome as a novel risk factor for atrial fibrillation: results from a national Danish registry cohort study. European journal of preventive cardiology. 2021;28(12):e20-e2.