

Supplementary Table S1. Biomarkers of studies

Disease Groups	Disease	Year/Place	Patient Count	Biomarkers
Respiratory System	Allergic Rhinitis	Danevska IA.20, 2021-2022/ Macedonia	30 pediatric patient, 30 healthy children	FRAS 5
	Pulmonary Tuberculosis	Torun E.28, 2012-2013/ Türkiye	40 pediatric patient, 40 healthy children	TAS, TOS, PON1, OSI
	Asthma	Atef Abdelsattar Ibrahim H.21, 2022/ Egypt	40 pediatric patient, 21 healthy children	Zinc, IgE, Ferritin,
He L.22, 2017/China		43 pediatric patient	MDA	
Heart and Circulatory System	Acute rheumatic fever	Gozu Pirinccioglu A.39, 2019/Türkiye	30 pediatric patient 31 healthy children	MDA, PCO, hs-CRP, TNF- α , IL-6, TAC
	Kawasaki Disease	He YE.41, 2019/China	80 Pediatric Patients, 20 febrile and 20 healthy children	oxLDL, LOX-1
	Congenital Heart Disease	Pirinccioglu AG.42, 2012/Türkiye	43 Pediatric Patients 30 Healthy Children	MDA, PCO, TAC, hs-CRP, Fibrinogen, IL-6, TNF- α ,
		Temel MT.43, 2019/Türkiye	47 Pediatric Patient (23 TOF, 24 VSD) 47 Healthy Children	NO, native thiol, total thiol
Urinary System	Renal Failure and Dialysis	Hamed EA.52, 2010/Egypt	40 pediatric patient 20 healthy children	HIF-1 α , VEGF, TAC, TPX, pyruvate and lactate, OSI, lactate/pyruvate (L/P) ratio
Newborn	Neonatal Hyperbilirubinemia	Ahmed MZH.56, 2021-2022/Egypt	100 pediatric patient	CBC, Hb, WBCs, platelet count, Reticulocyte count, Serum bilirubin (total and direct), CRP, TAC
		Demirtas MS.7, 2023/Türkiye	28 Pediatric Patient	Bilirubin, total and native thiol, TAS, TOS, OSI
	Transient Tachypnea of the Newborn (TTN)	Demirtas MS.8, 2023/Türkiye	81 newborns (29 term [$\geq 37-41$ weeks], 52 late terms [$\geq 34-36$ weeks])	Thiol (native and total), disulfide, TAS/TOS, OSI
	Bronchopulmonary dysplasia (BPD)	Demirtas MS.9, 2023/Türkiye	110 infants (31 BPD, 79 Control)	TOS, TAS, OSI, native thiol and total thiol
	Retinopathy Of Prematurity (ROP)	Erdal H.10, 2023/Türkiye	129 infants	TOS, TAS, OSI, native thiol and total thiol
Rheumatologic System	Immunoglobulin A Vasculitis	Kısaoğlu H.47, 2021/Türkiye	44 pediatric patient	MDA, 8-hydroxydeoxyguanosine (DNA oxidation marker), TOS, TAS, IL-17
	Systemic lupus erythematosus (SLE)	Fouad H.48, 2019/Egypt	100 pediatric patient 100 Healthy Child	MDA, GST, SOD, TAC, CAT
Neuro-psychiatric Diseases	Anxiety	Güney E.35, 2012-2013/Türkiye	40 pediatric patient 35 healthy children	TAS, TOS, OSI
	Autism (ASD)	Rose S.33, 2012/USA	15 Patient (8 Children) 15 healthy (10 Children)	GSH, GSSG
	Epilepsy	Kopan DT.37, 2024/Türkiye	120 pediatric patient 40 healthy children	ONOO-, TOS, TAS, OSI, 8-OHdG
	Febrile Seizure	Elmas B.36, 2016/Türkiye	40 patient 30 healthy	Total thiol, native thiol, disulfide levels
Other Related Conditions	Obstructive sleep apnea (OSA)	Malakasioti G.29, 2011/Greece	12 moderate to severe OSA 22 mild OSA 16 healthy	H(2)O(2) nitrite and nitrate
	Vitamin B12 Deficiency	Demirtas MS.6, 2023/Türkiye	45 Pediatric Patient 45 Healthy Children	Hemogram, vitamin B12, homocysteine levels, native and total thiol disulfide levels
Hematologic Diseases	Idiopathic Thrombocytopenic Purpura (ITP)	Kar YD.53, 2018-2019/Türkiye	34 Acute ITP 18 Chronic ITP 33 Healthy	TOS, TAS, OSI, thiol / disulfide
	Breath-Holding Spells	Dilber B.55, 2014-2018/Türkiye	66 pediatric patient 30 healthy children	Protein carbonyl, nitrite, nitrate, TOS, TAS, OSI, MDA, CAT, SOD, CAT
Gastrointestinal Disorders	Celiac Disease	Rowicka G.46, 2018/Poland	32 ; Pediatric patient 24 Healthy Children	TOC, TAC, vitamin E, ferritin, uric acid, OSI, ox-LDL, vitamins A (retinol) CRP, TC, HDL-C, LDL-C, TG
	Food Allergy	Kamer B.45, 2010-2011/Poland	134 Pediatric Patient 36 Healthy Children	Zinc, Selenium, GSH-Px
Endocrin Disorders	Type 1 Diabetes Mellitus (T1DM)	Abdel-Moneim A.50, 2020/ Egypt	70 Pediatric Patient 30 Healthy Children	MDA, nitric oxide
		Grabia M.49, 2020-2022/Poland	103 Pediatric Patient 65 Healthy Children	TAS, TOS, OSI, GPx, MDA, CAT, SOD
	Vitamin D Deficiency	Zhang HQ.58, 2014/China	1488 school children (839 vitamin D deficiency)	SOD, CRP, MDA, IL-6

FRAS 5 (Free Radical Analytical System), TAS (total antioxidant status), TOS (total oxidant status), PON1 (paraoxonase 1), OSI (oxidative stress index), IgE (Immunoglobulin E), MDA (Malondialdehyde), PCO (protein carbonyl), hs-CRP (high-sensitivity C-reactive protein), TNF- α (tumor necrosis factor- α), IL-6 (interleukin-6), IL-17 (interleukin-17), TAC (total antioxidant capacity), oxLDL (Oxidised low-density lipoprotein), LOX-1 (lectin-like-oxLDL receptor-1), NO (nitric oxide), TOF (tetraloy of fallot), VSD (ventricular septal defect), HIF-1 α (Plasma hypoxia induced factor-1 α), VEGF (vascular endothelial growth factor), TPX (total peroxide), CBC (Complete blood count), Hb (hemoglobin), WBCs (white blood cells count), TTN (Transient Tachypnea of the Newborn), CPAP-Continuous Positive Airway Pressure, Bronchopulmonary dysplasia (BPD), Retinopathy Of Prematurity (ROP), Oxidative stress (OS), Glutathione S-transferase (GST), Superoxide dismutase (SOD), catalase (CAT), Systemic lupus erythematosus (SLE), oxidative stress index (OSI), Autism (ASD), Reduced glutathione (GSH), oxidized glutathione (GSSG), peoxynitrite (ONOO-), 8-hydroxy-2-deoxyguanosine (8-OHdG), Obstructive sleep apnea (OSA), Hydrogen peroxide (H(2)O(2)), Idiopathic Thrombocytopenic Purpura (ITP), Oxidized-LDL (ox-LDL), C-reactive protein (CRP), total cholesterol (TC), HDL cholesterol (HDL-C), LDL cholesterol (LDL-C), Triglyceride (TG), glutathione peroxidase (GSH-Px), Type 1 Diabetes Mellitus (T1DM)