

Supplemental Table 1. Previous cases of autoimmune hypoglycaemia caused by autoantibodies against the insulin receptor.

Patient	Year*	Country/ Region	Race	Gender	Age	Acanthosis nigricans	Fasting insulin	Fasting C-peptide	Underlying disease/ Autoantibody	Clinical course	Ref
1	1978	US	Creole	F	37	Yes	High	—	TBIR/ IRAb	Spontaneous clearing of the acanthosis nigricans over 3 years; Hypoglycaemia persisted and controlled by frequent feeding	[1, 2]
2	1978	US	Black	F	38	Yes	—	—	TBIR, Nephrotic syndrome/ IRAb, ANA	No remission by immunosuppressive therapy and died from hypoglycaemia after 23 months	[1, 2]
3	1982	US	Black	F	60	No	Normal	—	TBIR, Hashimoto's thyroiditis/ ANA, IRAb, TPO Ab	Hypoglycaemia remitted by prednisolone therapy but died from the sudden onset of abdominal pain, nausea and vomiting	[3]
4	1983	Italy	—	F	46	No	High	—	TBIR, Lupus nephritis/ IRAb	Plasmapheresis improved the patient's metabolic status	[4]
5	1987	Israel	—	M	1	No	Low	Low	AIH/ IRAb	Hypoglycaemia remitted by prednisolone therapy	[5]
6	1987	US	Black	F	43	Yes	High	—	AIH, TBIR/ IRAb	Euglycemia obtained by treatment with prednisolone and cyclophosphamide	[6]
7	1987	UK	—	F	50	No	Low	Low	Hodgkin's disease, AIHA/ IRAb	No change by frequent carbohydrate meals; Died from splenomegaly and chemotherapy later	[7]
8	1987	UK	—	M	76	No	Low	Low	Hodgkin's disease/ IRAb	Poor response to plasmapheresis and azathioprine; Hypoglycaemia remitted by prednisolone after 8-month therapy; Died from deteriorated liver function later	[8]

9	1988	US	Black	F	52	No	Low	Low	SLE/ IRAb, ANA, DNA Ab	Hypoglycaemia remitted by prednisolone therapy	[9]
10	1989	France	—	M	1	No	—	—	AIH, AIHA, SCID/ IRAb	Hypoglycaemia remitted by frequent feeding and prednisolone therapy in 15 days	[10]
11	1989	US	—	F	24	No	Low	Low	SLE/ IRAb, ANA, nRNP Ab, SM Ab	Hypoglycaemia remitted by prednisolone therapy	[11]
12	1989	US	Black	F	23	Yes	High	—	DM, TBIR/ IRAb, IAA, ANA	Died from cardiopulmonary arrest	[12]
13	1989	Japan	Asian	M	62	Yes	High	Low	TBIR/ IRAb, ANA, nRNP Ab, SM Ab	Not improved by immunosuppressive therapy with cyclophosphamide, prednisolone and methylprednisolone; Discharged with dietary instructions recommending frequent food intake	[13, 14]
14	1990	Hong Kong	Asian	M	49	No	Normal	—	Hodgkin's disease/ IRAb	Hypoglycaemia remitted by prednisone therapy within 4 weeks	[15]
15	1991	Italy	White	F	59	No	Low	Low	SLE, TBIR/ IRAb, ANA, dsDNA Ab	Hypoglycaemia remitted after 10 days of prednisolone therapy	[16]
16	1994	US	Black	M	59	—	—	—	TBIR, AIH/ IRAb	Died from severe hypoglycaemia with unconsciousness and dysfunction of multiple organs	[17]
17	1998	US	—	F	44	Yes	High	High	TBIR, AIH, Suspicious SLE/ IRAb, ANA	Euglycemia obtained after treatment of dextrose	[18]
18	2000	Japan	Asian	F	50	Yes	High	High	SLE, TBIR, AIH/ IRAb, ANA, dsDNA Ab	Euglycemia obtained after treatment of prednisolone	[19]

19	2006	France	White	M	88	No	High	Normal	Arterial hypertension/ IRAb, IAA	Hypoglycaemia remitted promptly by prednisolone therapy	[20]
20	2007	US	Black	F	61	Yes	—	High	TBIR, AIH/ ANA, TPO Ab, TgAb, IRAb	Euglycemia obtained by treatment with prednisolone and methylprednisolone	[21]
21	2007	Japan	Asian	F	74	No	High	High	TBIR, AIH/ IRAb, TgAb, IAA	Hypoglycaemia remitted by prednisolone therapy	[22]
22	2008	Japan	Asian	F	23	Yes	High	High	SLE, TBIR, AIH/ IRAb, ANA	Euglycemia obtained by treatment with steroid pulse and subsequent high dose of prednisolone; Later died from hemorrhagic shock due to duodenal ulcer and subsequent pneumocystis carinii pneumonia	[23]
23	2008	Japan	Asian	F	40	No	Normal	Normal	SLE, TBIR/ ANA, dsDNA Ab, ssDNA Ab, SSA Ab	Hypoglycaemia remitted after 2.5 month of prednisolone therapy	[24]
24	2009	China	Asian	M	37	No	High	High	SLE, AIH/ IRAb, ANA, dsDNA Ab, SM Ab, IAA	SLE and hypoglycaemia remitted by treatment with prednisone, chloroquine, intravenous cyclophosphamide for 6 months	[25]
25	2009	India	Asian	F	50	Yes	—	—	SLE, TBIR, AIH/ IRAb, ANA	Hyperglycemia corrected by a pulse therapy with intravenous methylprednisolone for 3 days with maintenance dose of steroids and azathioprine; Mild hypoglycaemia controlled by frequent meals	[26]

26	2011	Japan	Asian	F	32	No	Low	Low	AIH/ IRAb, TgAb, Microsome Ab, Platelet Ab	Immediately remitted after delivery	[27]
27	2011	South Korea	—	M	35	Yes	Normal	Low	AIH/ IRAb	No response to plasmapheresis; Hypoglycaemia and acanthosis remitted by prednisolone and azathioprine after 17-month therapy	[28]
28	2013	Japan	Asian	F	72	No	—	Low	T2D/ IRAb, IAA	Stable glycemia maintained at approximately 7.0% with liraglutide (0.9 mg/day) and gliclazide (20 mg/day)	[29]
29	2013	France	—	F	47	Yes	Low	Low	DM/ IRAb	Hypoglycaemia remitted by prednisolone after 5-month therapy; persistent hyperglycemia controlled by insulin therapy	[30]
30	2013	South Korea	Asian	F	38	No	High	High	SLE, ILD/ IRAb, ANA, dsDNA Ab, SSA Ab, SSB Ab, nRNP Ab	Hypoglycaemia remitted by immunosuppressive therapy including prednisolone, hydroxychloroquine and azathioprine	[28]
31	2014	France	White	M	44	Yes	High	Normal	SLE, T2D, Acanthosis nigricans/ IRAb, ANA, nRNP Ab	Hypoglycaemia remitted by rituximab after 10-month therapy	[31]
32	2017	UK	Latina	F	8	Yes	High	High	T1D, SLE, Dermatomyositis, Autoimmune thyroiditis/ IRAb, ANA, dsDNA Ab, GAD65 Ab, TPO Ab, TgAb	Poor response to B-cell immunomodulation, including high-dose corticosteroids, mycophenolate mofetil, rituximab, IVIg, and plasmapheresis; Hypoglycaemia improved by bortezomib	[32]

33	2018	US	Black	F	60	Yes	High	High	SLE, Hashimoto hypothyroidism/ IRAb, TPO Ab	Euglycemia obtained after IVIg treatment	[33, 34]
34	2021	Japan	Asian	M	59	Yes	High	Normal	SLE, Lupus nephritis/ IRAb, ANA, Ro/SSA Ab	Hypoglycaemia remitted by rituximab and glucocorticoids	[35]
35	2022	US	White	F	55	No	Low	Low	TBIR, Mixed connective tissue disease/ IRAb, Sm Ab, U1RNP Ab	Hypoglycaemia remitted by glucose therapy and nocturnal nasogastric feeding	[36]
36	2022	New Zealand	—	M	55	No	Low	Low	Cardiovascular, Peripheral vascular disease, Hypertension, Dyslipidaemia/ IRAb, ANA, Ro52 Ab, AM2 Ab	No further relapse of SLE disease activity or any hypoglycemic episodes after 18 weeks the multitarget therapy; Died from a severe cerebral infarction on Day 180	[37]

*, year of publication; -, unknown or not determined; AIH, autoimmune hypoglycaemia; AIHA, autoimmune haemolytic anaemia; AM2 Ab, anti-adrenomedullin 2 antibody; ANA, anti-nuclear antibody; DM, diabetes mellitus; dsDNA Ab, anti-double strand DNA antibody; GAD65 Ab, anti-glutamic acid decarboxylase autoantibody; IAA, insulin autoantibody; ILD, interstitial lung disease; IRAb, autoantibodies against insulin receptor; IVIg, intravenous immunoglobulin; nRNP Ab, anti-nuclear ribonucleoprotein antibody; SCID, severe combined immunodeficiency; SLE, systemic lupus erythematosus; SM Ab, anti-Smith antibody; SSA Ab, anti-Sjogren syndrome antigen A autoantibody; SSB Ab, anti-Sjogren syndrome antigen B autoantibody; T1D, type 1 diabetes; T2D, type 2 diabetes; TBIR, type B insulin resistance; TgAb, thyroglobulin antibody; TPO Ab, thyroid peroxidase antibody; U1RNP Ab, anti-U1 ribonucleoprotein antibodies.

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