Title: Hereditary Dystonia Overview GeneReview Table 2. Previous Nomenclature System

Authors: Klein C, Lohmann K, Marras C, Münchau A

Updated: June 2017

Table 2. Previous Nomenclature System for Inherited (Monogenic) Forms of Isolated or Combined Dystonia/Dyskinesias (DYTs)

Locus	Disorder	МОІ	Gene / Chromosome Locus ¹	Status & Remarks re Gene / Chromosome Locus
DYT1	Early-onset generalized dystonia	AD	TOR1A	Confirmed
DYT2	Autosomal recessive dystonia	AR	HPCA	Unconfirmed
DYT3	X-linked dystonia parkinsonism; "lubag"	XL	Xq13.1	Unconfirmed ² ; molecular genetic testing for founder haplotype linked to disease is possible & can be used for diagnostic purposes ³
DYT4	"Non-DYT1" dystonia; whispering dysphonia ⁴	AD	TUBB4A	Discovered independently in the same family by 2 different groups
DYT5	Dopa-responsive dystonia; Segawa syndrome	AD	GCH1	Confirmed
DYT6	Adolescent-onset dystonia of mixed type	AD	THAP1	Confirmed
DYT7	Adult-onset focal dystonia	AD	18p	Unconfirmed (not replicated since first described in 1996) ⁵
DYT8	Paroxysmal nonkinesigenic dyskinesia 1 (PNKD1)	AD	PNKD (previously known as MR-1)	Confirmed
DYT9	Paroxysmal choreoathetosis w/episodic ataxia & spasticity	AD	SLC2A1 (also known as GLUT1)	Identical to DYT18
DYT10	Paroxysmal kinesigenic choreoathetosis (PKD1) & infantile convulsions	AD	PRRT2	Confirmed
DYT11	Myoclonus-dystonia	AD	SGCE	Confirmed
DYT12	Rapid-onset dystonia- parkinsonism ⁶	AD	ATP1A3	Confirmed
DYT13	Multifocal/segmental dystonia	AD	1p36	Unconfirmed (not replicated since first described in 2001)
DYT14	Dopa-responsive dystonia, Segawa syndrome	AD	GCH1	Withdrawn; erroneous locus (identical to DYT5a)
DYT15	Myoclonus-dystonia	AD	18p11	Unconfirmed (not replicated since first described in 2002)
DYT16	Young-onset dystonia- (parkinsonism)	AR	PRKRA	Confirmed (one pathogenic variant identified)
DYT17	Autosomal recessive primary dystonia	AR	20p11.22-q13.12	Unconfirmed (not replicated since symbol in 2008)
DYT18	Paroxysmal exertion- induced dyskinesia 2	AD	SLC2A1	Confirmed

Locus	Disorder	MOI	Gene / Chromosome Locus ¹	Status & Remarks re Gene / Chromosome Locus
DYT19	Episodic kinesigenic dyskinesia 2 (PKD2)	AD	16q	Unconfirmed (clinical overlap w/PKD1; locus very close to DYT10)
DYT20	Paroxysmal nonkinesigenic dyskinesia 2 (PNKD2)	AD	2q	Unconfirmed (clinical overlap w/PNKD1; locus very close to DYT8)
DYT21	Late-onset pure dystonia	AD	2q14.3-q21.3	Unconfirmed ⁷
DYT22			Not listed in OMIM or PubMed	Undescribed form of dystonia; designation may have been 'reserved'
DYT23	Adult onset cranial-cervical dystonia	AD	CIZ1	Unconfirmed
DYT24	Adult onset cranial-cervical dystonia	AD	ANO3	Confirmed
DYT25	Adult onset cranial-cervical dystonia	AD	GNAL	Confirmed
DYT26	Myoclonic dystonia	AD	KCTD17	Unconfirmed
DYT27	Adolescent-onset segmental dystonia	AR	COL6A3	Unconfirmed
DYT28	Childhood-onset generalized dystonia	AD	KMT2B	Confirmed
DYT29	Childhood-onset mixed movement disorder w/optic atrophy & basal ganglia abnormalities	AR	MECR	Unconfirmed & complex phenotype

Data are compiled from the following standard references: gene from HGNC; chromosome locus and locus from OMIM.

MOI = mode of inheritance

AD = autosomal dominant

AR = autosomal recessive

XL = X-linked

- 1. Chromosome locus included only if gene has not been identified
- 2. The most likely candidate gene is TAF1
- 3. Domingo et al [2015]
- 4. Pathogenic variants in *TUBB4A* may cause a broader phenotype including leukoencephalopathy.
- 5. Unconfirmed but supported by the description of several individuals with an 18p deletion syndrome and co-occurrence of dystonia
- 6. Alternating hemiplegia of childhood is the phenotype in some families.
- 7. Norgren et al [2011]

References

Domingo A, Westenberger A, Lee LV, Brænne I, Liu T, Vater I, Rosales R, Jamora RD, Pasco PM, Cutiongco-Dela Paz EM, Freimann K, Schmidt TG, Dressler D, Kaiser FJ, Bertram L, Erdmann J, Lohmann K, Klein C. New insights into the genetics of X-linked dystonia-parkinsonism (XDP, DYT3). Eur J Hum Genet. 2015;23:1334-40.

Norgren N, Mattson E, Forsgren L, Holmberg M. A high-penetrance form of late-onset torsion dystonia maps to a novel locus (DYT21) on chromosome 2q14.3-q21.3. Neurogenetics. 2011;12:137-43.