Supplementary Table 1: Clinical features of patients carrying splicing mutations in *ERCC6*.

Splicing mutation	Case number	cHe/Ho	Country	Age at onset	Age at latest report or death*	Clinical classification	Growth failure	Low birth weight	Cachexia/bird-like faces	Mental retardation	Microcephaly	Cataracts	Microphthalmia	Retinal degeneration	Hearing loss	Clinical photosensitivity	Dental anomalies	Arthrogryposis	References
c.543+4A>T	1	Ho	China	6 years	30 years	CS III	+	–	+	–	–	–	–	–	–	+	+	–	This study
	2	Ho	China	8 years	33 years	CS III	+	–	+	+	–	–	–	–	–	+	+	–	This study
c.543+4delA	3	cHe	Caucasian	1 year	8 years	CS III	+	–	+	+	+	–	+	+	+	–	–	–	Shehata *et al*[1]
	4	cHe	Caucasian	22 months	7 years	CS III	+	–	+	+	+	–	NA	+	+	–	–	–	Shehata *et al*[1]
	5	cHe	Caucasian	1 year	5 years	CS III	+	–	–	+	+	–	NA	+	+	–	–	–	Shehata *et al*[1]
	6	cHe	France	2 years	13	CS I	+	–	+	+	+	–	–	–	–	+	+	–	Calmels *et al*[2]

					years														
	7	cHe	Italy	1 year	36 years	CS III	+	NA	+	+	+	NA	+	NA	+	+	+	–	Calmels *et al*[3]
c.544–1G>A	8	cHe	France	3 years	22 years	CS III	+	–	+	+	+	+	–	–	NA	+	NA	–	Laugel *et al*[4]
	9	Ho	France	NA	57 years*	CS III	+	–	+	+	–	–	–	–	+	–	NA	–	Laugel *et al*[4]
c.653–2A>G	10	Ho	Switzerland	0 year	8 years	CS I	+	–	+	+	+	–	–	+	+	+	+	–	Laugel *et al*[4]
c.1397+2T>A	11	cHe	France	0 year	2 years	CS II	+	+	+	+	+	+	NA	+	+	–	NA	–	Calmels *et al*[3]
c.1526+1G>T	12	cHe	UK	NA	10 years	CS I	+	NA	NA	+	NA	NA	–	NA	+	+	NA	–	Calmels *et al*[3]
c.1686–1G>A	13	cHe	Italy	0.6 year	1.1 (2.9*) years	CS II	+	–	+	+	+	+	+	+	+	–	–	+	Calmels *et al*[3]
c.1685+6T	14	cHe	Italy	0 year	1.7	CS II	+	+	+	+	+	+	+	NA	NA	–	NA	–	Calmels *et al*[3]

>G					(2.6*) years														
c.1993−7C >T	15	cHe	NA	NA	26 years	CS	III	NA	NA	NA	NA	NA	NA	NA	NA	+	NA	NA	NA	Monies *et al*[5]
c.1993−5A >G	16	Ho	UK	NA	34 years	CS	III	+	NA	+	–	NA	NA	NA	NA	NA	–	–	NA	Calmels *et al*[3]
c.1992+3A >G	17	Ho	Turkish	NA	16 years	CS	III	+	NA	–	+	NA	NA	NA	NA	NA	+	NA	–	Swartz *et al*[6]
	18	Ho	Turkish	NA	11.5 years	CS	III	+	NA	–	+	NA	NA	NA	NA	NA	+	NA	–	Swartz *et al*[6]
	19	Ho	Turkish	NA	8 years	CS	III	+	NA	–	–	–	–	–	–	–	––	–	–	Swartz *et al*[6]
	20	Ho	Turkish	0 year	21 years	CS	III	+	+	–	+	NA	NA	NA	NA	NA	+	NA	–	Swartz *et al*[6]
	21	Ho	Turkish	NA	20 years	CS	III	+	–	–	–	–	––	–	–	–	–	–	–	Swartz *et al*[6]
	22	Ho	Turkish	0 year	12.75 years	CS	III	+	+	–	+	NA	NA	NA	NA	NA	+	NA	–	Swartz *et al*[6]

c.2170−1G>A	23	cHe	USA	0 year	1 year*	CS II	+	–	+	+	+	+	–	+	–	–	–	–	Laugel *et al*[4]
	24	cHe	UK	0 year	3.5 years*	CS II	+	+	+	+	+	+	–	+	+	+	NA	–	Laugel *et al*[4]
	25	cHe	UK	0 year	0.6 year*	CS II	+	+	+	+	+	+	–	+	+	+	NA	+	Calmels *et al*[3]
c.2287−2A>G	26	Ho	France	0 year	6 months*	CS II	+	+	+	+	+	NA	–	NA	+	+	NA	–	Laugel *et al*[4]
	27	Ho	France	0 year	1.5 years*	CS II	+	+	+	+	+	NA	–	NA	+	+	NA	–	Laugel *et al*[4]
	28	cHe	UK	0 year	0.1 years	CS II	+	NA	NA	NA	+	+	NA	NA	NA	+	NA	NA	Calmels *et al*[3]
c.2286+1G>A	29	cHe	UK	NA	1 (8*) years	CS II	+	NA	+	+	NA	+	NA	NA	NA	NA	NA	NA	Calmels *et al*[3]
c.2382+2T>G	30	cHe	Danish	0 year	4 years*	CS II	+	–	+	+	+	+	+	NA	NA	+	+	+	Sanchez-Roma

	31	cHe	Danish	0 year	4 years*	CS II	+	–	+	+	+	+	+	NA	NA	+	+	+	Sanchez-Roma
c.2599–26A>G	32	cHe	France	0 year	4 years*	CS II	+	+	+	+	+	+	–	+	–	+	NA	–	Laugel *et al*[4]
	33	Ho	Pakistan	0 year	2 years	CS II	+	+	+	+	+	+	+	–	+	–	+	+	Calmels *et al*[3]
	34	cHe	UK	2 years	17 years	CS I/III	+	–	+	+	+	+	–	NA	+	+	+	–	Calmels *et al*[3]
	35	cHe	France	0 year	4 years	CS I/II	+	–	+	+	+	+	–	–	–	–	–	–	Calmels *et al*[2]
	25 [a]	cHe																	Calmels *et al*[3]
	36	cHe	Australia	0 year	6.5 years	CS II	+	NA	+	+	+	+	NA	+	+	NA	NA	NA	Mallery *et al*[8]
c.2709+1G>T	37	Ho	Amish	0 year	2 years	CS II	+	+	+	NA	+	+	+	NA	NA	+	+	–	Xin *et al*[9]
	38	Ho	Amish	0 year	NA	CS II	+	+	+	NA	+	+	+	NA	NA	+	+	–	Xin *et al*[9]
	39	cHe	Amish	0 year	NA	CS II	+	+	+	NA	+	+	+	NA	NA	+	+	–	Xin *et al*[9]
	40	cHe	Amish	0 year	NA	CS II	+	+	+	NA	+	+	+	NA	NA	+	+	–	Xin *et al*[9]
c.2830–2A>G	24 [a]	cHe																	Laugel *et al*[4]
	41	Ho	UK	0.5 years	0.5	CS II	+	+	NA	+	+	+	+	NA	NA	NA	NA	NA	Calmels *et al*[3]

					year														
	42	cHe	UK	NA	7 (18*) years	CS I	+	NA	NA	NA	NA	NA	NA	NA	+	+	NA	NA	Calmels et al[3]
					4 years														
	43	cHe	Europe	NA	1 month s	CS II	NA	NA	NA	NA	NA	NA	NA	NA	NA	+	NA	NA	Frouin *et al*[10]
c.3778+2T >G	44	cHe	France	4 years	29 years	CS III	+	–	+	+	+	–	–	+	+	+	+	–	Laugel *et al*[4]
c.4063−1G >C	45	Ho	South Africa	1 years	14 years	CS I	+	–	+	+	+	–	–	+	+	+	NA	–	Laugel *et al*[4]
	46	Ho	India	0.3 years	10 years	CS I	+	–	+	+	+	–	–	+	–	+	NA	–	Calmels *et al*[3]
	47	Ho	India	NA	16 years	CS III	+	–	+	+	NA	NA	NA	NA	NA	NA	+	–	Calmels *et al*[3]
	48	Ho	India	4 years	13	CS III	+	+	+	+	+	–	–	+	–	+	+	–	Calmels *et al*[3]

					years															
	49	Ho	India	NA	8 years	CS I	+	NA	+	+	+	NA	NA	+	NA	NA	NA	NA	Calmels *et al*[3]

CS: Cockayne syndrome; cHe: compound Heterozygous; Ho: Homozygous; NA: data not available; [a] The same case with two splicing mutations; [*]Age at death; [+]: present/abnormal; [−]: absent.

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Supplementary Table 2: Electrophysiological features of the proband.

Nerve (right)	Nerve conduction velocity	Action potential	Latency
Motor nerve	MNCV (m/s)	cMAP (mV)	Latency (ms)
Median nerve	40.1	19.8	9.5
Ulnar nerve	44.6	9.4	9.29
Peroneal nerve	37.7	7	12.9
Tibial nerve	33.2	11.6	17.9
Sensory nerve	SNCV (m/s)	SNAP (μV)	Latency (ms)
Median nerve	39	5.6	3.59
Ulnar nerve	36.5	6.4	3.56
Superficial peroneal nerve	28.6	2.3	3.04
Sural nerve	34.7	6.2	3.03

cMAP: Compound motor action potential; MNCV: Motor nerve conduction velocity; SNAP: Sensory nerve action potential; SNCV: Sensory nerve conduction velocity.

Supplementary Table 3: Summary of clinical features between splicing mutations and non-splicing mutations.

Clinical feature	Splicing mutations	Non-splicing mutations			*P*-value
		Calmels *et al*[3]	Laugel *et al*[4]	Total	
CS I	7/47	17/46	14/41	31/87	0.011*
CS II	21/47	27/46	22/41	49/87	0.198
CS III	19/47	2/46	5/41	7/87	<0.001*
Growth failure	47/47	47/48	45/46	92/94	0.552
Low birth weight	16/36	12/30	18/34	30/64	0.815
Cachexia/bird-like faces	36/43	40/41	28/39	68/80	0.852
Mental retardation	37/41	39/40	44/45	83/85	0.087
Microcephaly	33/38	41/43	37/39	78/82	0.140
Cataracts	21/35	25/37	31/42	56/79	0.252
Microphthalmia	12/33	8/21	13/30	21/51	0.659
Retinal degeneration	16/25	10/19	28/38	38/57	0.815
Hearing loss	20/30	18/31	30/32	48/63	0.333
Clinical photosensitivity	30/43	29/35	29/39	58/74	0.298
Dental anomalies	15/25	11/16	13/20	24/36	0.594
Arthrogryposis	5/40	3/18	11/29	14/47	0.052

*Significant at $P < 0.05$; CS, Cockayne syndrome.