

Vascular Complications of Neurofibromatosis Type 1—A Case Report and Literature Review with Special Emphasis on Pregnancy

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Supplementary Material

Author	Age	Sex	Location	Outcome	Country	Pathology
Head and neck lesions						
Takahashi et al. 2016	64	F	R. maxillary a.	n. r.	JP	n. r.
Liang et al. 2016	42	M	R. internal carotid a.	died	CN	Neurofibroma, proliferation of spindle cells positive for S-100 protein
Arai et al. 2007	38	M	L. cervical a.	died	JP	Schwann cell proliferation, thinning of the media
Kanematsu et al. 2011	48 39	M F	L. occipital a. R. occipital a.	survived survived	JP	n. r. n. r.

Teitelbaum et al. 1998	34	F	Superficial cervical branch of the left thyrocervical trunk	survived	US	n. r.
Morello et al. 2001	53	F	Branches of the l. thyrocervical trunk	survived	US	n. r.
Ishizu et al. 2006	76	F	R. thyrocervical trunk	n. r.	JP	Proliferation of spindle cell positive for S-100 protein in the adventitia; tickening by proliferation of fibromuscular cells; irregularity of the media
Chovanec et al. 2009	37	M	L. thyrocervical trunk	survived	CZ	n. r.
Al-Jundi et al. 2011	40	F	L. thyrocervical trunk	survived	UK	n. r.
Hung et al. 2012	47	F	L. thyrocervical trunk	survived	TW	n. r.
Elamurugan and Ram 2019	47	M	L. thyrocervical a.	survived	IN	n. r.
Ihoriya et al. 2021	65	F	L. inferior thyroid a.	survived	JP	n. r.
Hoonjan et al. 2014	43	M	L. costocervical trunk	died	UK	n. r.
Horsley et al. 1997	56	F	L. extracranial vertebral a.	survived	AU	n. r.
Magara et al. 1998	28	M	L. extracranial vertebral a.	survived	JP	Neurofibroma, spindle cells in the adventitia
Ushikoshi et al. 1999	40	F	L. extracranial vertebral a.	survived	JP	Neurofibroma
Miyazaki et al. 2004	52	F	L. extracranial vertebral a.	died	FR	Fibrous hyperplasia, disordered smooth muscle cells, cells positive for S-100 protein, proliferation of Schwann cells
Hieda et al. 2007	36	F	L. extracranial vertebral a.	survived	JP	n. r.

Higa et al. 2010	60	F	L. extracranial vertebral a.	survived	US	n. r.
Morvan et al. 2011	36	F	L. extracranial vertebral a.	survived	FR	n. r.
Hiramatsu et al. 2012	31	M	R. extracranial vertebral a.	survived	JP	n. r.
Lee et al. 2014	34	M	L. extracranial vertebral a.	survived	KR	n. r.
Uneda et al. 2016	35	F	R. extracranial vertebral a.	survived	JP	n. r.
Han et al. 2019	36	M	L. extracranial vertebral a.	survived	KR	n. r.
Bidad et al. 2019	32	M	R. extracranial vertebral a.	died	US	n. r.
Abdulrazeq et al. 2019	30	F	R. extracranial vertebral a.	survived	US	n. r.
Impiombato et al. 2011	60	F	L. internal jugular v.	survived	IT	Proliferation of plexiform neurofibromatous tissue
Belcastro et al. 2011	60	F	L. internal jugular v.	survived	US	Neurofibroma in the vessel wall
Hiraki et al. 2014	60	M	L. internal jugular v.	survived	JP	Reduction of elastic fibers, cells positive for S-100 protein
Dova et al. 2016	53	M	L. internal jugular v.	survived	GR	Positive cells of S-100 protein in the vein wall
Ardhaoui et al. 2020	27	F	L. internal jugular v.	survived	MA	n. r.
Peyron and Pollanen 2017	42	F	Hematoma retropharyngeal, unknown source of bleeding	died	FR	Infiltration of the walls of small cervical blood vessels and of the right vertebral artery by neurofibroma
Kettner et al. 2007	40	F	Hematoma cervical, unknown source of bleeding	died	DE	n. r.
Lesions in the trunk						
Leier et al. 1972	55	M	R. subclavian a.	died	US	Extensive adventitial

						infiltration by
						neurofibroma growing in a plexiform pattern
Takahashi et al. 1989	38	F	L. subclavian a.	survived	JP	n. r.
Schievink and Piepgras 1991	43	F	L. subclavian a.	survived	US	n. r.
Miura et al. 1997	61	M	L. subclavian a.	died	JP	Disarrangement of smooth muscle cells, decrease of elastic fibers, fibroblast proliferation
Slisatkorn et al. 2003	46 44	F M	L. subclavian a. L. subclavian a.	survived survived	TH	Cellular proliferation of neurofibromatous tissue
Baldo et al. 2003	33	M	R. subclavian a.	died	ES	Involvement of the vascular wall by Neurofibromas
Tatebe et al. 2005	39	M	L. subclavian a.	survived	JP	n. r.
Yoshida and Tobe 2005	48	M	L. subclavian a.	survived	JP	Neurofibroma
Fedoruk et al. 2007	48	F	L. subclavian a.	survived	CA	Anastomosing strands of a fibrillary collagenous and myxoid matrix containing short fusiform cells, cells positive for S-100 protein, Wagner-Meissner bodies, diffuse neurofibroma
Seow et al. 2007	46	F	L. subclavian a.	died	TW	n. r.
Sandhu and Sabharwal 2008	42	F	L. subclavian a.	died	UK	n. r.
Faruque and	31	F	L. subclavian a., l.	survived	AU	Benign plexiform

Davidson 2009			extracranial vertebral a.			neurofibroma
Sakamoto et al. 2009	51	M	L. subclavian a.	survived	JP	n. r.
Santin et al. 2010	44	F	R. subclavian a.	survived	US	n. r.
Miyazaki et al. 2011	59	F	R. subclavian a.	survived	JP	Fibrous hyperplasia, rupture of the internal elastic lamella, thin media, smooth muscle becoming disorderly in arrangement, cells positive for S-100 protein
Rodriguez- Guzman et al. 2014	53	M	R. subclavian a.	survived	ES	n. r.
Souftas et al. 2011	59	F	R. subclavian a.	survived	GR	n. r.
Mydin et al. 2015	56	F	R. subclavian a.	survived	UK	n. r.
Katarao et al. 2019	52	M	R. subclavian a.	survived	JP	n. r.
Negreira et al. 2020	33	M	L. subclavian a.	survived	US	n. r.
Lee and Kim 2021	33	M	L. subclavian a.	survived	KR	n. r.
Mullan et al. 1994	54	M	L. axillary a.	died	UK	Infiltration of the wall by neurofibromatosis
Moreau et al. 2014	74	F	L. subscapular a.	survived	BE	n. r.
Souldi et al. 2016	32	F	L. external carotid a.	survived	MA	n. r.
Miyamoto et al. 2020	49	M	L. deep common carotid a.	survived	JP	n. r.
Butchart et al. 1975	41	M	R. intercostal a. (10.)	survived	UK	No diagnostic features
Larrieu et al. 1982	44	F	R. intercostal a. (9.)	survived	CA	Schwannoma with numerous dilated

						blood vessels
Kipfer et al. 2001	42	F	R. intercostal a. (n. o. s.)	survived	SCH	n. r.
Dominguez et al. 2002	44	M	L. intercostal a. (4.)	survived	ES	Pseudoneoplastic mesenchymal proliferation, cells positive for S-100 protein
Niimi et al. 2002	62	F	R. intercostal a. (11.)	survived	JP	n. r.
Chang et al. 2005	29	M	R. intercostal a. (n. o. s.)	survived	TW	n. r.
Miura et al. 2005	59	F	R. intercostal a. (5.)	survived	JP	Diffuse neurofibroma
Imamura et al. 2007	40	M	R. intercostal a. (10.)	survived	JP	n. r.
Arai et al. 2007	49 72	M F	L. intercostal a. (11.) L. intercostal a. (10.)	survived survived	JP JP	n. r. n. r.
Matsumoto et al. 2007	49	M	L. intercostal a. (11.)	survived	JP	n. r.
Kim et al. 2011	32	F	R. intercostal a. (n. o. s.)	died	KR	n. r.
Aizawa et al. 2010	48	M	R. intercostal a. (11.)	survived	JP	n. r.
Ottinger et al. 2012	46	M	R. intercostal a. (9.)	survived	DE	n. r.
Misao et al. 2012	40	M	R. intercostal a. (12.)	survived	JP	n. r.
Hongsakul et al. 2013	46	F	L. intercostal a. (5.)	survived	TH	n. r.
Kabir et al. 2016	46	F	L. intercostal a. (2.)	survived	US	n. r.
Attia et al. 2019	31	F	R. intercostal a. (5.)	survived	TN	n. r.
Pantazopoulos et al. 2020	59	M	L. intercostal a. (8.)	survived	GR	n. r.
Ishigaki et al. 2018	52	M	R. lumbar a.	survived	JP	n. r.
Adelson and Vories 2004	33	F	R. internal mammary a.	survived	US	Neurofibroma
Conlon et al. 2007	40	M	R. internal mammary a.	survived	IE	Hyaline intimal thickening, disruption of elastic

						fibers and membrane, loss of the media, normal adventitia
Urso et al. 2007	63	M	R. internal mammary a.	died	ES	n. r.
Kwon et al. 2016	50	M	R. internal mammary a.	survived	KR	n. r.
Kim et al. 2017	55	F	L. internal mammary a.	survived	KR	n. r.
Kim et al. 2005	45	F	L. internal thoracic a.	survived	KR	n. r.
Hamasaki et al. 2014	63	F	L. internal thoracic a.	survived	JP	n. r.
Neto et al. 2020	43	M	R. internal thoracic a.	survived	BR	n. r.
d'Errico et al. 2018	52	F	L. pulmonary a.	died	IT	No specific findings
Wigger et al. 1997	35	F	Infrarenal aorta	survived	CH	Irregular thickness due to a narrowing of the media with elastolysis, elastin fragmentation, increased mucoid degeneration, cells positive for S-100 protein in the adventitia
Shimizu et al. 1998	51	M	Aorta and lumbar a.	died	JP	Media dysplasia
Hines et al. 2002	52	M	Infrarenal aorta	died	US	n. r.
Fernandez-Flores et al. 2008	28	M	Aorta (n. o. s.)	died	ES	n. r.
Falcone et al. 2010	49	F	Infrarenal aorta	died	US	Spindle cell lesion, cells positive for S-100 protein, neurofibroma infiltrated into the wall of the aorta, thinned wall
Moro et al.	67	F	Aorta and l. colic a.	survived	JP	Positive cells for S-

2019						100 protein, neurofibroma
Chew et al. 2001	34	M	Distal infrarenal aorta	survived	US	n. r.
Rao et al. 2007	48	M	Hepatic a.	died	UK	n. r.
Im et al. 2015	43	M	Gastroduodenal a.	survived	KR	n. r.
Makita et al. 2021	45	M	Gastroduodenal a.	died	JP	Proliferation of neurofibroma cells, positive for S-100 protein
Huffman et al. 1996	44	M	Superior mesenteric a.	n. r.	US	n. r.
Mendonça et al. 2010	31	F	Superior mesenteric a.	survived	BR	n. r.
Park et al. 2012	49	M	Middle colic a.	survived	KR	Degeneration of elastic fibers, adventitial fibrosis, intimal hyperplasia, spindle cells positive for S-100 protein in the aortic wall
Kerger et al. 2012	61	F	Inferior mesenteric a.	survived	FR	n. r.
Morita et al. 2020	40	F	Pancreatic arcade a.	survived	JP	n. r.
Fukushima et al. 2020	55	F	Superior pancreaticoduodenal a.	survived	JP	n. r.
Abt et al. 2011	37	M	R. renal a.	survived	CN	n. r.
Niwa et al. 2013	41	F	L. renal a.	survived	JP	n. r.
Roberts et al. 2019	44	F	L. accessory renal a.	survived	US	n. r.
Higa et al. 2021	59	M	R. renal a.	survived	JP	n. r.
Zhang et al. 2010	62	M	R. internal pudendal a.	survived	CN	n. r.
Kunz and Maxeiner 1997	36	M	L. common iliac a.	died	DE	Fragmentation of the elastic membrane and fibers,

						neurofibroma
Hinsch et al. 2008	28	F	R. common iliac a., VCI and others	died	DE	No findings in small- and medium-sized arteries; small neurofibromas in the aorta, cells positive for S-100 protein in the aorta
Makino et al. 2013	39	M	Superior rectal a.	survived	JP	n. r.
Yow et al. 2015	55	F	Superior rectal a.	survived	UK	Presence of Schwann cells
Choong et al. 2012	30	M	L. internal iliac a.	survived	UK	n. r.
Moerbeek et al. 2015	33	F	L. internal iliac a.	died	NL	Neurofibroma (close to the vessel in MRI)
Doleman et al. 2013	60	M	L. external iliac a.	survived	UK	n. r.
Griffiths et al. 1998	63	F	Hematothorax likely caused by retropleural process	died	UK	Proliferation of spindle cells within the intima in the intrarenal artery
Pezzetta et al. 2003	29	F	Hematothorax, unknown source of bleeding	survived	CH	n. r.
Miura et al. 2005	46	F	Hematothorax, unknown source of bleeding	survived	JP	n. r.
Vaziri and Mehrasma 2006	30	F	Hematothorax caused by bleeding from a tumor vessel	survived	IR	Ganglioneuroma
Radeschi et al. 2007	36	F	Hematothorax caused by a neoplastic mass in the upper anterior mediastinum	survived	IT	Pseudoneoplastic mesenchymal proliferation compatible with neurofibroma
Föhrding et al. 2014	39	F	Hematothorax, unknown source of bleeding	died	DE	n. r.
Pulivarthi et al. 2014	49	F	Hematothorax, unknown source of	survived	US	segments of hyperplastic nerve

			bleeding			tissue, consisting of cells positive for S-100 protein
Degbelo et al. 2019	45	M	Hematothorax, unknown source of bleeding	survived	CH	n. r.
Attia et al. 2019	57	M	Hematothorax, unknown source of bleeding	survived	TN	n. r.
[121]	38	M	Hemorrhage retroperitoneal, unknown source of bleeding	survived	US	n. r.
Tsang et al. 2006	40	F	Hemorrhage retroperitoneal, unknown source of bleeding	died	HK	Most likely source of bleeding: L. iliac a., infiltration of neurofibroma in the wall
White et al. 2004	62	M	Subcutaneous hematoma on the back region caused by a tumor (neurofibroma)	survived	UK	n. r.
Baek et al. 2007	62	F	Subcutaneous hematoma on the back region caused by a tumor	survived	KR	Diffuse neurofibroma. Positive cells for S-100 protein
Lesions of the limbs						
Emori et al. 2010	53	F	Bifurcation of the l. brachial a.	survived	JP	Proliferating spindle cells positive for S-100 protein, no intimal proliferation, no thinning of the media, no fragmentation of elastic tissue
Saitoh and Matsuda 1998	28	F	L. brachial a.	died	JP	Proliferating tissue in the adventitia, cells positive for S-100 protein, negative for actin and desmin,

Canada; CN: China; CZ: Czechia; DE: Germany; DK: Denmark; ES: Spain; F: Female; France; GR: Greece; HK: Hongkong; IE: Ireland; IR: Iran; IT: Italy; JP: Japan; KR: Korea; M: Male; MA: Morocco; MY: Malaysia; MRI: Magnetic Resonance Imaging; NL: Netherland; NOS: Not Otherwise Specified; NR: Not Reported; SE: Sweden; TH: Thailand; TN: Tunisia; TW: Taiwan; UK: United Kingdom; US: United State of America; V: Vein; VCI: Vena Cava Inferior