

Patient number	Finger number	Surgery number (and time since previous surgery)	Procedure number (for a particular finger)	Clinical impression of glomus tumor	Abnormalities by MRI	Operative findings	Pathology findings
NIH-1	Left F4	1	1	Yes	1) Nodular lesion, ulnar aspect: hyperintensity on T2 and prominent enhancement with gad; 2) Smaller lesion, more centrally situated within nail bed on T2; but difficult to see on post-contrast	2 distinct tumors (subungual and in pulp, at tip, with bony erosion)	Glomus tumor (X2)
NIH-1	Left F4	2 (+ 6 mo)	2	Yes	Limited study but 1) Residual tumor at ulnar side of nailbed with mild T2 hyperintensity and minimal enhancement with gad; 2) Small central nailbed finding with mild T2 hyperintensity, and minimal enhancement	Tumor in pulp, with bony erosion	Glomus tumor
NIH-1	Left F4	3 (+ 6 mo)	3	Yes	None	No tumor found	No specimen submitted
NIH-1	Left F3	2 (+ 6 mo)	1	Yes	Abnormality central to ulnar aspect of nailbed with mild STIR and T2 hyperintensity	"Small abnormality found"	Pacinian corpuscle
NIH-1	Left F3	3 (+ 6 mo)	2	Yes	None	"No abnormalities found"	Dense fibrous tissue
NIH-1	Left F5	1	1	Yes	Lesion with moderate enhancement with gad; poorly resolved on STIR and T2 due to poor fat suppression	Tumor in pulp, no bony erosion	Glomus tumor
NIH-1	Left F5	3 (+ 12 mo)	2	Yes	None	"No obvious glomus tumors"	Traumatic neuroma
NIH-1	Right F3	1	1	Yes	Approx. 3.5 mm palmar lesion with moderate enhancement with gad and mild to moderate hyperintensity on T2 and STIR; mild bone erosion	Tumor in pulp, with bony erosion	Glomus tumor
NIH-1	Right F4	2	1	Yes	Mild focal increased enhancement at margins of nailbed, ulnar side > radial side, minimal hyperintensity on T2	"Some areas of whitish tumor"	Pacinian corpuscle
NIH-1	Right F5	2	1	Yes	None	"Some areas of whitish tumor"	Pacinian corpuscle
NIH-2	Left F2	1	1	Yes	Nodular lesion, isointense on T1 and mildly hyperintense on T2; moderate enhancement with gad; smooth erosion of the underlying phalangeal cortex	"Tumor"	Glomus tumor
NIH-2	Left F2	2 (+ 8 mo)	2	Yes	No change from earlier imaging. Nodular lesion at ulnar side of nailbed shows marked T2 hyperintensity and gad enhancement with erosion of the underlying cortex. No marrow edema. There is also thickening and increased gad enhancement at radial side of nailbed more distally.	Tumor "scalloped the bone somewhat"	Glomus tumor
NIH-2	Left F4	1	1	Yes	Nodular lesion, isointense to nail bed on T1 and minimally hyperintense on T2; moderate enhancement with gad; erosion of the underlying bony cortex	"Tumor"	Glomus tumor
NIH-2	Left F4	2 (+ 8 mo)	2	Yes	Thick lumpy nailbed with bone erosion; moderate T2 hyperintensity, mild increased enhancement with gad	"Tumor"	Glomus tumor
NIH-2	Right F1 (thumb)	1	1	Yes	T2 images demonstrate a bi-lobed lesion; post-contrast imaging demonstrates subcortical, intraosseous component; generalized enhancement in nailbed	"Tumor"	Glomus tumor
NIH-2	Right F1 (thumb)	2 (+ 8 mo)	2	Yes	Irregular lumpy nailbed. More focally prominent at ulnar side of nailbed with bone erosion; mild gad enhancement and mild T2 hyperintensity	"Tumor"	Glomus tumor
NIH-2	Right F1 (thumb)	3 (+ 8 mo)	3	Yes	Post-operative changes only	"Scar tissue"	No specimen submitted
NIH-2	Left F3	2	1	Yes	None	"Tumor"	Dense fibrous tissue
NIH-2	Right F4	3	1	Yes	Focal nodular lesion, axial T2 with increased enhancement	"Tumor easily identified"	Glomus tumor
NIH-2	Right F5	3	1	Yes	Localized widening at both ulnar and radial margins of the nailbed with mild increased enhancement but without T2 hyperintensity. T2 showed small punctate focal hyperintensity in central nailbed without gad correlate	"No tumor identified"	No specimen submitted
NIH-3	Left F3	1	1	Yes	T2 imaging depicts a nodular high signal lesion; also a mildly increased signal on T1. No substantial enhancement relative to surrounding nail bed on post contrast imaging	"Apparent abnormality"	Glomus tumor
NIH-3	Right F4	1	1	Yes	No MRI imaging performed	"2 small nodular approx 1 mm lesions"	Fibrovascular tissue
NIH-3	Left F4	1	1	Yes	None	"Found no abnormalities"	No specimen submitted
NIH-4	Left F3	1	1	Yes	Nodular lesion, best seen on T2 and STIR; exhibits only mild increased enhancement	"Tumor"	Glomus tumor
Leu-1	Right F4	1	1	Yes, and reddish discoloration of nail bed	No MRI imaging performed	Tumor proximal in nail bed	Glomus tumor
Leu-1	Right F5	1	1	Yes	No MRI imaging performed	Tumor under nail plate, removed via "window" in nail	Glomus tumor
Leu-2	Right F3	1	1	Yes	No MRI imaging performed	Tumor in nail bed	Glomus tumor
Leu-2	Right F4	1	1	Yes, reddish discoloration at base of phalanx	No MRI imaging performed	Tumor in nail bed	Glomus tumor, surrounded by Schwann cells without connection to axons
Leu-3	Left F3	1	1	Yes	No MRI imaging performed	Tumor in distal pulpa	Glomus tumor
Leu-3	Right F4	1	1	Yes	No MRI imaging performed	Tumor in distal pulpa	Glomus tumor
Leu-3	Left F4	2 (after 6y)	1	Yes, with split nail	No MRI imaging performed	1 tumor ulnar side and 1 tumor nail bed	Glomus tumor x 2
Leu-4	Right F4	1	1	Yes, mild swelling radial side of base of phalanx	No MRI imaging performed	1 tumor radial side under nail plate	Glomus tumor

Leu-5	Left F3	1	1	Yes, mild swelling and reddish color radial side phalanx	No MRI imaging performed	1 tumor at radial side distal phalanx	Glomus tumor
Leu-5	Left F3	2 (+ 13m)	2	Yes	Normal MRI, hypoechogenic lesion ultrasound 2.5x2.2 mm	1 tumor at same location as previous surgery	Glomus tumor
Leu-6	Right F3	1	1	Yes	No MRI imaging performed	Tumor under nail plate on ulnar side	Glomus tumor
Leu-7	Left F5	1	1	Yes, large tumor in pulpa with red color of skin	No MRI imaging performed	Large tumor in pulpa	Glomus tumor
Leu-8	Left F4	1	1	Yes, swelling proximal phalanx and deformed nail	No MRI imaging performed	Tumor radial side of nailbed	Glomus tumor
Hamburg-1	Left F4	1	1	Yes	Discrete 2 mm lesion on T1 post-contrast enhancement with fat suppression	Tumor in pulp, no bony erosion	Glomus tumor
Hamburg-2	Right T1 (big toe)	1	1	Yes	Semi-circular signal intensity subungual, right T1, no contrast enhancement	Tumor in pulp, no bony erosion	Glomus tumor

Table S1. Chronology, clinical impression, MRI imaging, operative findings and pathology results of 14 individuals with NF1-associated glomus tumors. Note that NIH-5 not listed since surgery and imaging performed at another institution. T2 = T2-weight imaging by MRI; STIR = short T1 Inversion recovery imaging sequence by MRI; Gad = gadolinium contrast agent