eTable 1. **Comparisons of baseline characteristics between patients with and without follow-up after shunt surgery.**
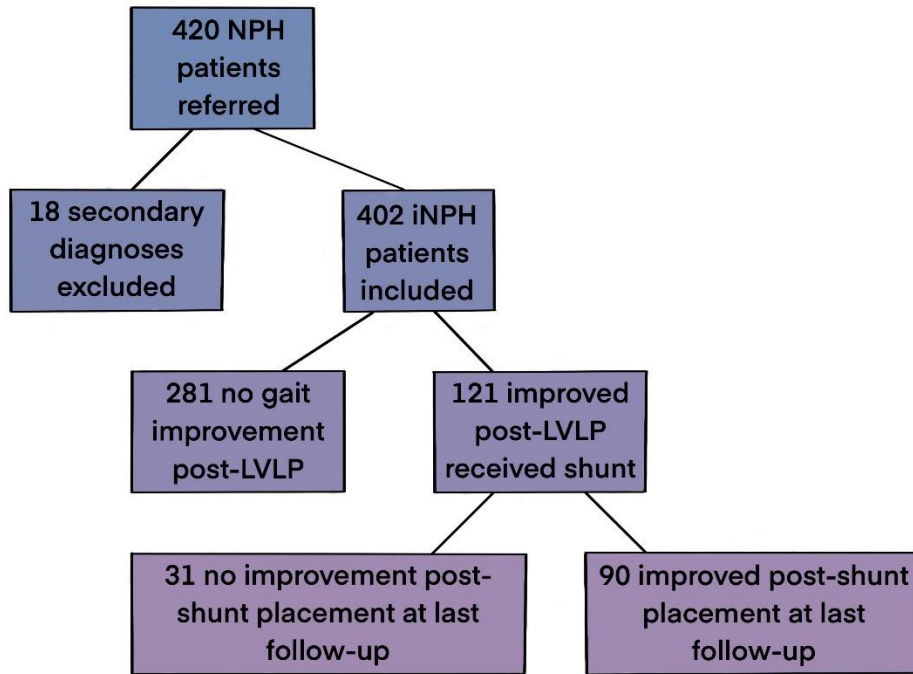
Factor	Level	With follow-up	Lost-to-follow-up	p-value
N		103	18	
Age, mean (SD)		77.3 (6.3)	76.8 (6.9)	0.755
Male gender, n (%)	M	68 (66.0%)	12 (66.7%)	0.957
Race, n (%)	African American	3 (2.9%)	0 (0.0%)	0.319
	Asian	1 (1.0%)	1 (5.6%)	
	Caucasian	99 (96.1%)	17 (94.4%)	
Living Status, deceased, n (%)	Deceased	4 (3.9%)	1 (5.6%)	0.560
Hypertension, n (%)		85 (82.5%)	15 (83.3%)	1.000
Best MoCA score, n (%)	<22	43 (41.7%)	10 (55.6%)	0.548
	22-25	39 (37.9%)	5 (27.8%)	
	>=26	21 (20.4%)	3 (16.7%)	
TUG Score Baseline, mean (SD)		36.0 (53.3)	27.1 (18.1)	0.489
MRI-Evan's Index (0-1), mean (SD)		0.38 (0.04)	0.40 (0.03)	0.016
Transependymal Flow, n (%)		40 (38.8%)	8 (44.4%)	0.851
NFL, median (IQR)		1512 (971, 2604)	1527 (814, 2311)	0.512
LRG Normalized, median (IQR)		278 (182, 470)	234 (171, 372)	0.423
pTau, median (IQR)		23.8 (18.1, 34.7)	22.0 (15.6, 26.9)	0.177
tTau, median (IQR)		219 (140, 313)	192 (109, 309)	0.276
$A\beta 1$–42, median (IQR)		746 (499, 1014)	805 (584, 1059)	0.512
$A\beta 1$–40, median (IQR)		6681 (4857, 8851)	5985 (4539, 7658)	0.466

eTable 2. **Logistic regression models for relationships between improvement after shunt surgery and baseline characteristics and biomarkers (n=121).**
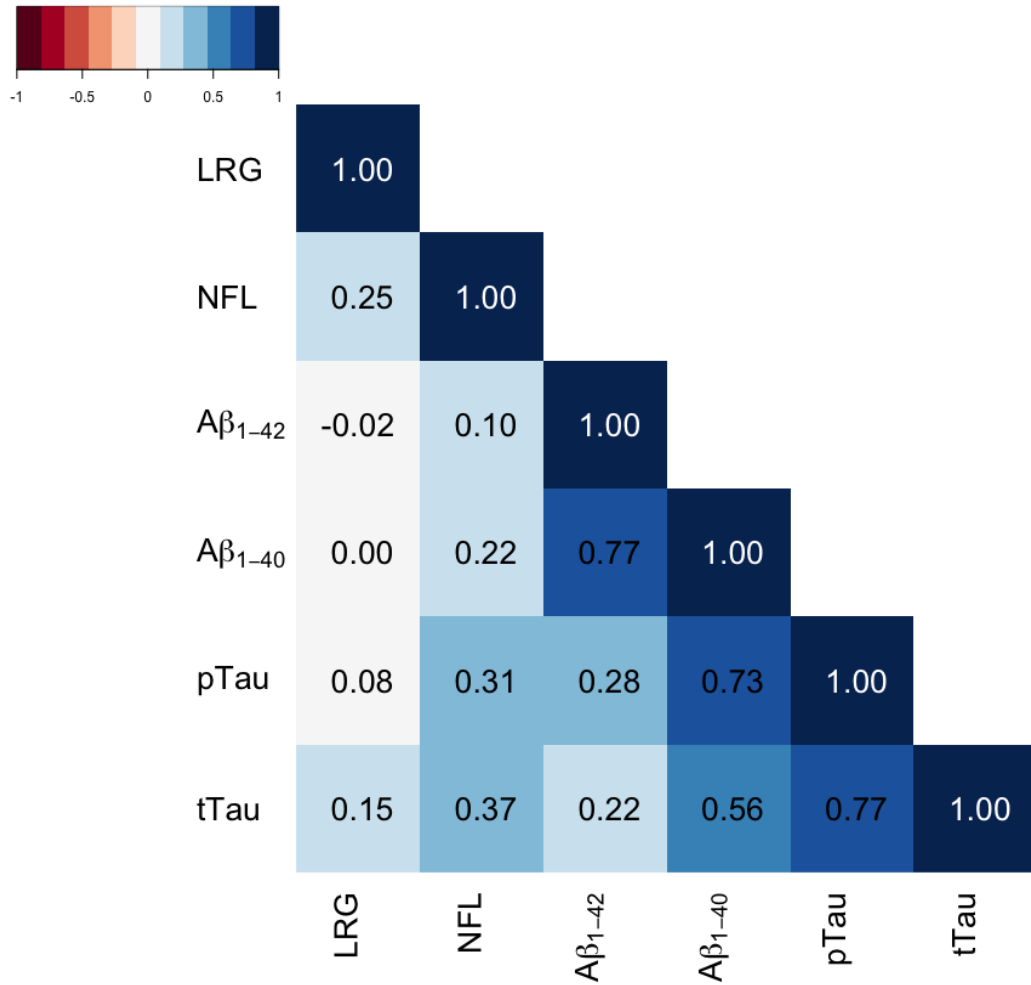
Predictors	Unadjusted models			Adjusted model		
	Odds Ratio	95% CI	p-value	Odds Ratio	95% CI	p-value
Age	0.91	(0.84, 0.98)	0.010	0.93	(0.83, 1.02)	0.126
Female Gender	0.59	(0.20, 1.44)	0.255			
MRI Evan's Index, per 0.01 pts	1.12	(0.99, 1.31)	0.071	1.12	(0.96, 1.36)	0.134
TUG baseline, per 10 pts	1.01	(0.92, 1.24)	0.885			
MoCA (<22)						
22-25	1.85	(0.73, 5.36)	0.192			
>=26	1.84	(0.62, 8.97)	0.290			
NFL	0.32	(0.04, 0.65)	<0.001	0.38	(0.04, 0.91)	0.026
pTau181	0.30	(0.11, 0.55)	<0.001	0.33	(0.10, 0.66)	0.005
tTau	0.45	(0.23, 0.76)	0.005			
LRG Normalized	0.65	(0.44, 0.96)	0.039	0.67	(0.44, 1.31)	0.110
$A\beta_{1-40}$	0.51	(0.30, 0.79)	0.004			
$A\beta_{1-42}$	0.69	(0.45, 1.12)	0.114			

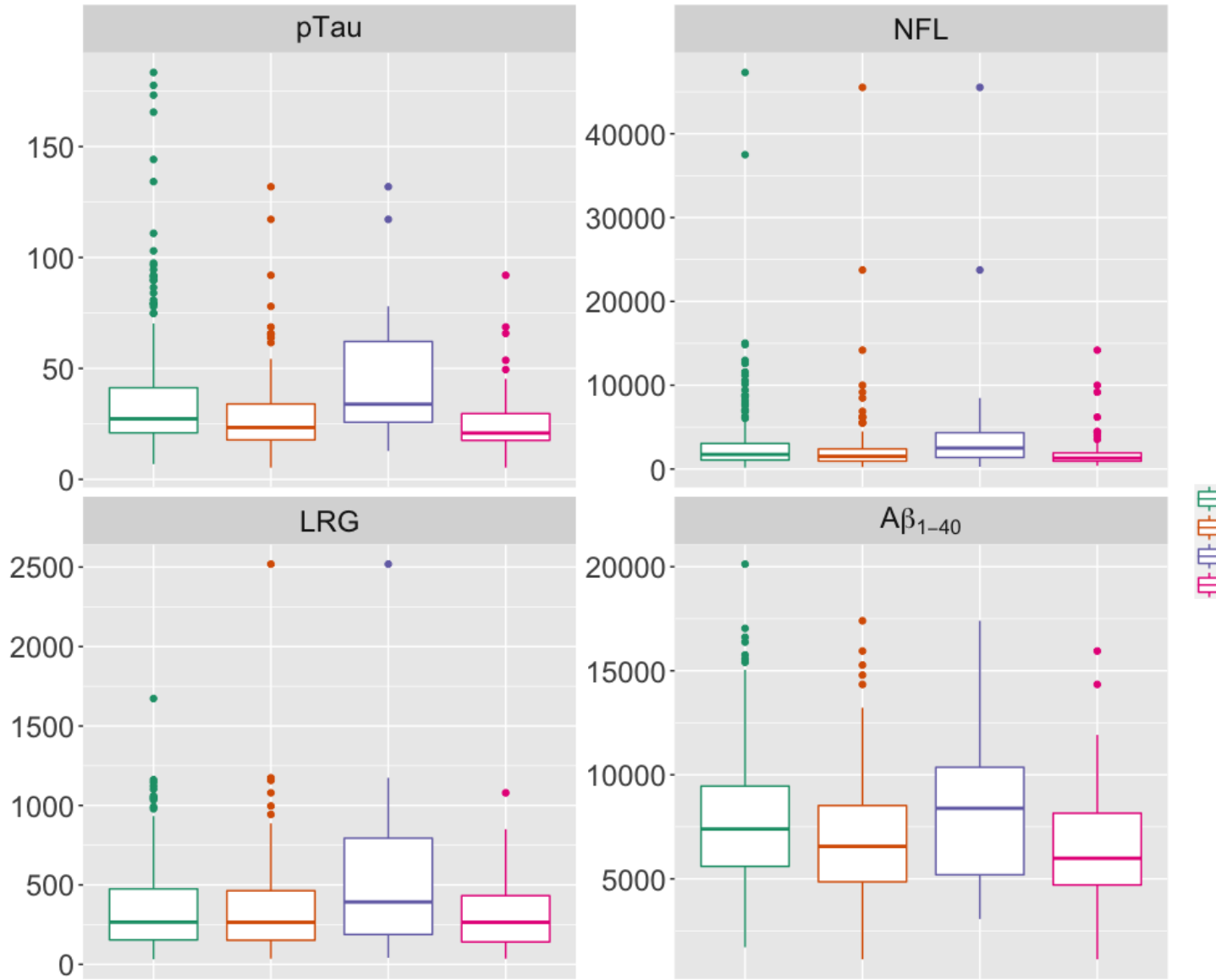The predictors for the adjusted model were selected by LASSO regression.

Median odds ratio from bootstrap samples are reported. P-value was obtained by determining the proportions of bootstrapped coefficients smaller and larger than zero and multiplying the minimum proportion by two.

eFigure 1. Selection and follow-up of iNPH patients referred for shunt surgery

eFigure 2. **Heatmap plot for the correlation between biomarkers.**

eFigure 3. **Boxplots showing distributions of pTau, NFL, LRG, and Aβ$_{1-40}$ in patient groups.**