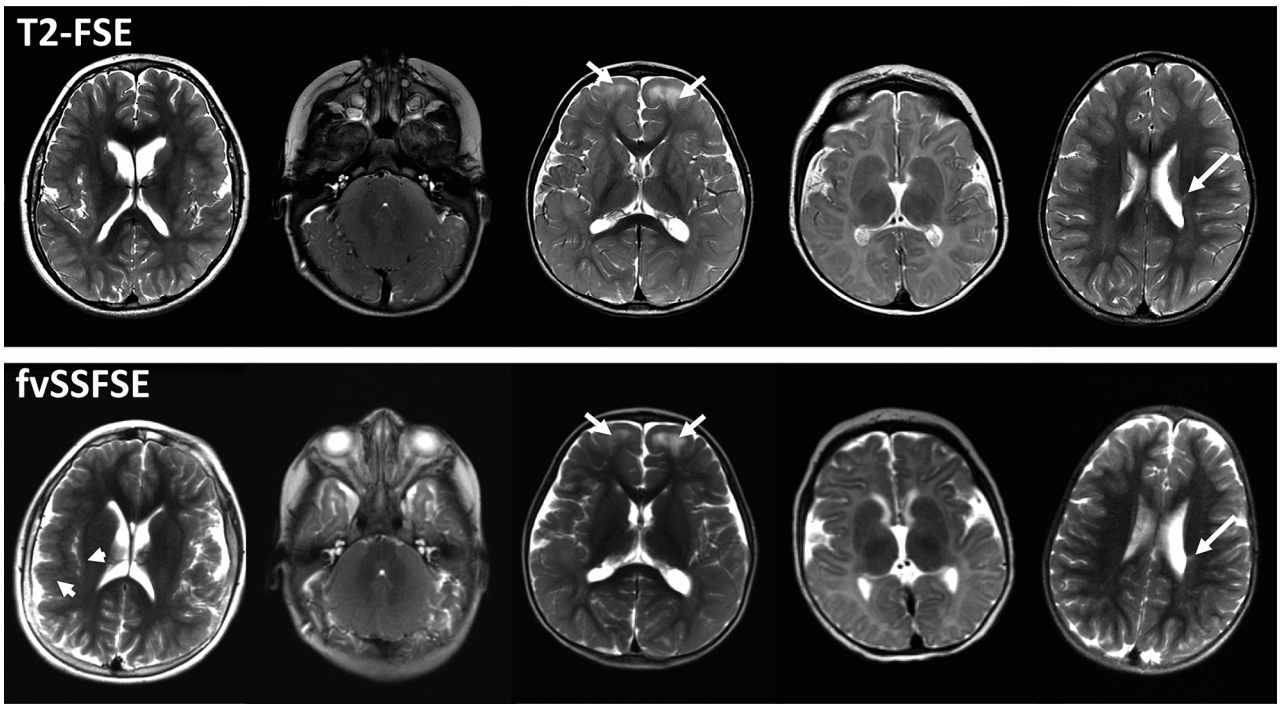
On-line Table 1: Clinical characteristics of patients who underwent SSFSE and vrfSSFSE scans

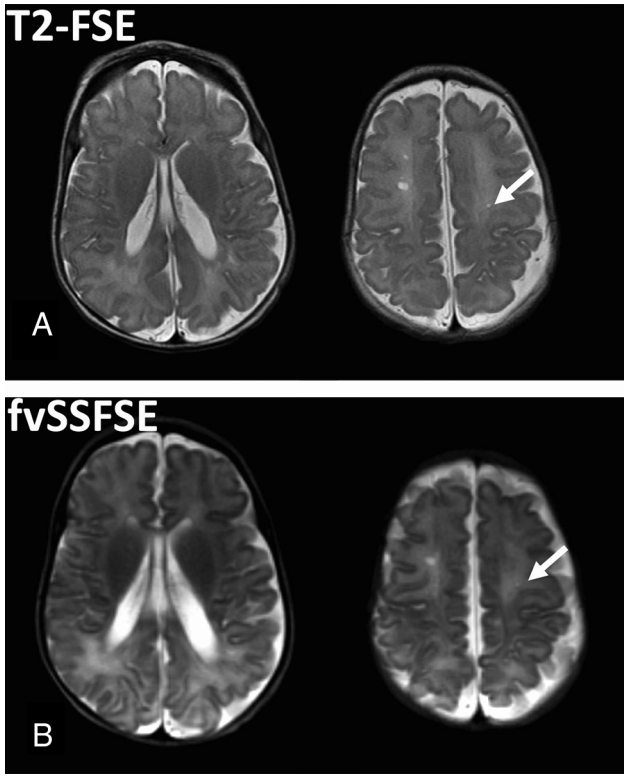
Patient	Sex	Age	Indication for Examination
1	F	16 mo	Ventricle size
2	F	11 yr	Ventricle size
3	F	17 mo	Ventricle size
4	F	3 yr	Ventricle size
5	M	8 yr	Subdural hemorrhage, fluid collection
6	M	11 yr	Ventricle size, shunt function
7	F	20 mo	Ventricle size
8	F	13 yr	Ventricle size
9	F	17 yr	Ventricle size
10	F	11 yr	Subdural space following drain revision
11	F	2 yr	Ventricle size
12	F	15 yr	Ventricle size
13	M	7 mo	Ventricle size
14	F	4 yr	Ventricle size
15	M	10 yr	Ventricle size following shunt revision
16	F	3 yr	Ventricle size
17	F	13 yr	Ventricle size
18	F	3 yr	Ventricle size
19	F	20 yr	Ventricle size
20	F	14 mo	Ventricle size
21	M	4 yr	Ventricle size
22	M	2 yr	Ventricle size, Chiari II
23	F	8 yr	Ventricle size
24	M	2 yr	Ventricle size
25	M	8 mo	Ventricle size
26	M	14 mo	Subdural space
27	F	5 yr	Cerebellar tonsils
28	F	12 yr	Ventricle size, Dandy-Walker syndrome
29	F	11 mo	Ventricle size following septum pellucidotomy
30	M	12 yr	Ventricle size

On-line Table 2: Clinical characteristics of patients who underwent T2-FSE and full-Fourier vrfSSFSE imaging

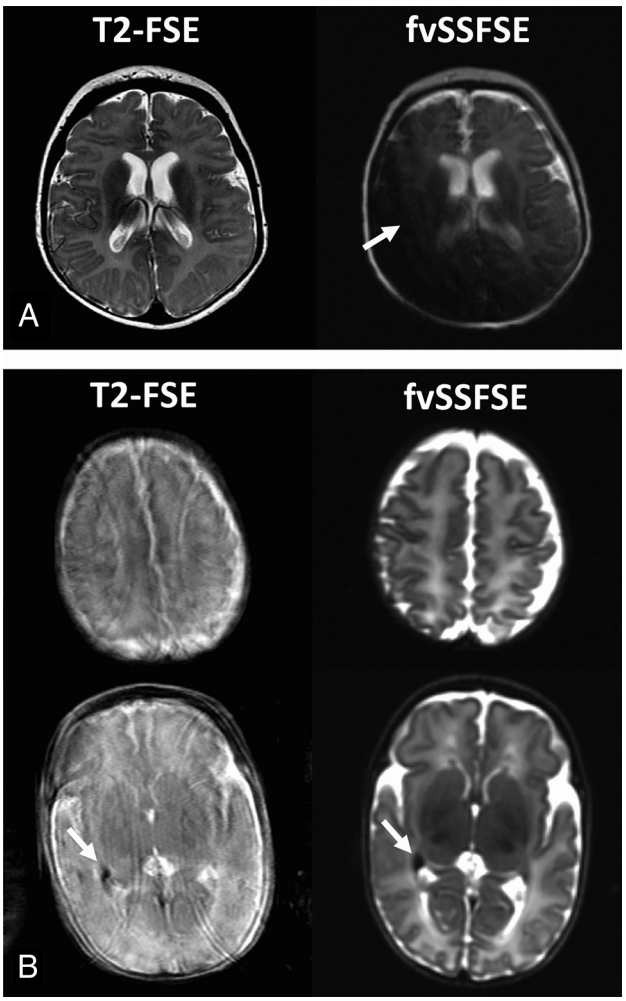
Patient	Sex	Age	Indication for MRI	Findings
1	M	1 wk	Muscle weakness	Normal
2	F	1 wk	Trauma	Subarachnoid hemorrhage
3	M	2 mo	Prematurity	Cyst
4	F	11 yr	Headaches	Normal
5	F	10 yr	Craniosynostosis repair	Catheter, postoperative changes
6	F	12 yr	Psychiatric symptoms	Normal
7	M	17 yr	Cognitive decline	Normal
8	F	12 yr	Headaches	Normal
9	M	6 mo	Spasmus nutans	Normal
10	M	17 yr	Cardiac arrest	Cyst
11	F	10 mo	Status post shunt, Chiari II	Ventriculomegaly, shunt, Chiari II
12	M	10 yr	Macrocephaly	Polymicrogyria
13	M	6 yr	Ataxia	Cerebellar atrophy
14	M	6 mo	Hypotonia, poor feeding	Ventriculomegaly
15	M	2 mo	Prematurity	Intraventricular hemorrhage
16	F	1 mo	Prematurity	Normal
17	M	2 mo	Prematurity	Ventriculomegaly, old hemorrhage
18	F	2 yr	Progressive weakness	Normal
19	M	15 yr	Cavernous malformation resection	Postoperative changes
20	F	17 yr	Headaches	Normal
21	M	2 yr	Follow-up tuberous sclerosis	Subependymal nodules, cortical tubers
22	M	3 mo	Prematurity	Normal
23	M	16 yr	Cerebral palsy	Normal
24	F	9 yr	Ataxia	Normal
25	M	3 mo	Epilepsy	Ventriculomegaly
26	M	7 yr	Developmental delay	Normal
27	M	8 yr	Developmental delay	Normal
28	F	6 yr	Developmental delay	Normal
29	F	10 yr	Headaches	Normal
30	M	5 yr	Hypertonia, weakness	Periventricular injury
31	F	14 yr	Arteriovenous malformation resection	Postoperative changes
32	M	23 mo	Follow-up arachnoid cyst	Arachnoid cyst
33	M	5 yr	History of stroke	Borderzone infarct
34	F	14 yr	Seizures, Sturge-Weber syndrome	Hemispherectomy, cortical mineralization
35	F	11yr	Headaches	Normal
36	M	10 yr	Headaches	Normal
37	M	15 mo	Klippel-Feil syndrome	Normal
38	F	2 mo	Prematurity	Intraparenchymal hemorrhage



ON-LINE FIG 1. Sample clinical cases evaluated on full-Fourier vrfSSFSE (fvSSFSE) and T2-FSE. *Upper row* represents T2-FSE images. Corresponding fvSSFSE images of the same patients are shown in the *lower row* (*left-to-right*): cerebral malformation associated with polymicrogyria (*white arrowheads*); crowding of the posterior fossa associated with Chiari II hindbrain malformation; tuberous sclerosis with tubers shown (*short white arrows*); immature baby brain with cerebral underdevelopment; and old periventricular white matter injury (*long white arrows*).



ON-LINE FIG 2. An example of discordance between T2-FSE (*A*) and full-Fourier vrfSSFSE (*B*). A 3-month-old term male infant who presented for screening MR imaging. *A*, T2-FSE image demonstrates injury of prematurity, with enlarged ventricles, abnormal periventricular white matter, and multiple bilateral white matter cysts/cavities. *B*, Full-Fourier vrfSSFSE identified most of these findings except for the presence of focal left cyst/cavity (*arrow*).



ON-LINE FIG 3. Sample motion-related signal loss associated with full-Fourier vrfSSFSE (fvSSFSE) and T2-FSE is shown. *A*, A 3-month-old term male infant who presented for evaluation of seizures. Note dark signal (*arrow*) present on a single section representing motion-related signal loss that might be seen with full-Fourier vrfSSFSE. *B*, A 2-month-old infant with a history of premature birth who presented for screening MR imaging. Note motion artifacts and degraded imaging on T2-FSE compared with faster full-Fourier vrfSSFSE acquired back-to-back. Note focal hemosiderin from remote hemorrhage (*arrow*).