presence or absence of reactivity is known to be poor. **Methods:** Here we report the implementation of a clinical protocol formalizing the use of afferent stimuli – name-calling, clapping, nasal tickle, central painful stimuli and tracheal suction – administered during the routine EEG evaluation of behaviourally unresponsive patients in the critical care units at London Health Sciences Centre. EEGs were evaluated by qualified electroencephalographers. **Results:** This retrospective observational study of consecutive patients describes the inter-rater reliability of detecting presence or absence of EEG reactivity since implementation of the clinical protocol. Moreover it evaluates the relationship between EEG reactivity and clinical outcome to determine its reliability as a prognostic tool. **Conclusions:** The implementation of clinical protocols to standardize testing parameters may improve the ability to provide a reliable neurologic prognosis for critically ill patients in a comatose and behaviourally unresponsive state.

Neuroimaging

P.062

MR Venography predicts increased intracranial hypertension in children with hydrocephalus

AC Rohr (Vancouver) F Knerlich-Lukoschus (Sankt Augustin) M Heran (Vancouver) J Shewchuk (Vancouver) N Margraf (Kiel) A van Baalen (Kiel) O Jansen (Kiel)*

doi: 10.1017/cjn.2018.164

Background: We investigated whether the presence of dural sinus narrowing is a more reliable marker of intracranial hypertension / shunt failure in children than the imaging finding of hydrocephalus. **Methods:** Cranial MRIs of n=12 children were included when being well and when there was definitive intracranial hypertension as per follow-up and intraoperative results (gold standard). Images werde assessed for hydrocephalus on T2w images and narrowing of dural sinuses on MR vengraphy (diameter of <50%). **Results:** Dural sinuses narrowing was detected with a sensitivity of 0.67, a specificity of 1.0, PPV of 1.0 and NPV of 0.75 (Table 1). Hydrocephalus was detected with a sensitivity of 0.5, a specificity of 0.83, PPV of 0.75 and NPV of 0.63. Results differed between the test methods (p = 0.01, Cochrane Q test). **Conclusions:** Dural sinus narrowing more reliably predicted intracranial hypertension, a sign which might significantly improve care in critically ill children.

Patient #	Age at MRI	Shuntfailure as per clinical follow-up (Goldstandard)	Hydro cephalus	Dural Sinus Narrowing
	Years	1 = yes 2 = no	1 = yes 2 = no	1 = yes 2 = no
1	1	1	1	0
	4	0	0	0
2	6	1	1	1
	6	0	0	0
3	12	1	0	1
	12	0	0	0
4	18	1	0	1
	19	0	0	0
5	0	1	1	0
	1	0	1	0
6	0	0	1	0
	0	1	1	0
7	17	1	0	1
	17	0	0	0
8	10	1	1	1
	10	0	0	0
9	0	1	1	1
	1	0	0	0
10	8	1	0	1
	8	0	0	0
11	14	1	0	1
	14	0	0	0
12	18	1	0	0
	18	0	0	0

		Shuntfailure(Goldstandard)		
		Affected	Non-affected	total
Hydrocephalus	Positive	6	1	8
	Negative	6	10	16
		12	12	24

		Shuntfailure(Goldstandard)		
		Affected	Non-affected	total
Dural Sinus Narrowing	Positive	8	0	8
	Negative	4	12	16
		12	12	

P.063

Stereotactic targeting of hippocampal substructures using ultra-high field magnetic resonance imaging: Feasibility study in patients with epilepsy

JC Lau (London) J DeKraker (London) KW MacDougall (London) H Joswig (London) AG Parrent (London) JG Burneo (London) DA Steven (London) TM Peters (London) AR Khan (London)*

doi: 10.1017/cjn.2018.165

Background: The hippocampus can be divided longitudinally into the head, body, and tail; and unfolded medial-to-laterally into the subiculum, cornu ammonis (CA) sectors, and the dentate gyrus. Ultra-high field (≥ 7 Tesla; 7T) magnetic resonance imaging (MRI) enables submillimetric visualization of these hippocampal substructures which could be valuable for surgical targeting. Here, we assess the feasibility of using 7T MRI in conjunction with a novel computational unfolding method for image-based stereotactic targeting of hippocampal substructures. **Methods:** 53 patients with drug-resistant epilepsy were identified undergoing first-time implantation of the hippocampus. An image processing pipeline was created for computationally transforming post-operative electrode contact locations into our hippocampal coordinate system. **Results:** Of 178 implanted hippocampal electrodes (88 left; 49.4%), 25 (14.0%) were predominantly in the subiculum, 85 (47.8%) were in CA1, 23 (12.9%) were

https://doi.org/10.1017/cjn.2018.164 Published online by Cambridge University Press