

#1

Neonatal hypocalcemia is the most common metabolic disorder, and whether asymptomatic disease should be treated with calcium supplements remains controversial. We aimed to quantify neonatal hypocalcemia's global CBF and cerebral metabolic rate of oxygen (CMRO₂) using physiologic MR imaging and elucidate the pathophysiologic vulnerabilities of neonatal hypocalcemia.

#2.

Neonatal hypocalcemia with structural damage may exhibit lower hemodynamics and cerebral metabolism. CBF may be useful in assessing the need for calcium supplementation in asymptomatic neonatal hypocalcemia to prevent brain injury.

#3

Most neonatal studies have focused on low birth weight, brain injury such as hypoxic-ischemic encephalopathy detected with near-infrared spectroscopy, and WM lesions detected with PCMR and TRUST MR imaging. Few perinatal studies have been conducted on the effects of NHC on cerebral oxygen metabolism and hemodynamics.

#4

Between June 2021 and April 2022, fifty-six neonates were enrolled. The participants were categorized into the NHC and control groups. The inclusion criteria for the NHC group were asymptomatic neonates with

#5

Stenotic cerebral venous sinuses with associated emissary veins, common in patients with MPSIH, may be abnormal findings due to posterior fossa horns from glycosaminoglycan depositions rather than signs of elevated intracranial pressure or requirement of CSF diversion.

#6

The time course of changes in posterior fossa morphology, quality of life, and neurologic function of patients with Chiari I malformation after craniocervical decompression requires further elaboration. To better understand the pace of these changes, we longitudinally studied patients with Chiari I malformation, with or without syringomyelia, before and after the operation for up to 5 years.

#7

Morphometric measurements demonstrated an enlargement of the CSF areas posterior to the cerebellar tonsils after the operation, which remained largely stable through the following years. There was a decrease in pain and improved quality of life after the operation, which remained steady during the following years. Reduction in pain and improved quality of life correlated with CSF area morphometrics.

#8

In Chiari I malformation (CMI), tonsillar herniation and posterior fossa underdevelopment directly caused CSF to accumulate in the CMI

#9

All patients underwent the operation in a prone, horizontal position with the head in a neutral or gently flexed posture. The surgical procedure included a suboccipital craniectomy, C1 laminectomy, and sometimes removal of the superior part of the lamina of C2. The bony opening decompressed the inferior cerebellar hemispheres and cerebellar tonsils. A Y-shaped durotomy was performed. The arachnoid was preserved. Intradural structures were not manipulated.

#10

The change from baseline for the cerebellar tonsillar position inferior to the McRae line, cerebellar height, occipital bone length, and cerebellum-clivus bone angle occurred within the first 3–6 months after surgery (Fig 2). The cerebellar tonsillar position inferior to the McRae line decreased 2 mm 3–6 months after surgery (TP = 0.5) and 0.8 mm more in following years. The cerebellar height decreased by 2 mm following PFDD surgery. The occipital bone length was 23 mm shorter following PFDD surgery.

#11

Mucopolysaccharidosis I-Hurler (MPSIH) syndrome is the most severe form of a group of hereditary lysosomal diseases. This study aims to describe previously unreported common cranial findings of sigmoid sinus stenosis with prominent emissary veins in MPSIH. A retrospective review was conducted of 66 patients with MPSIH who were treated at our

#13

The brain and cranial imaging manifestations of MPSIH have been well-studied and include WM signal-intensity abnormality, ventricular dilation, hydrocephalus, enlarged perivascular spaces, a J-shaped sella turcica, an enlarged pituitary gland, and posterior fossa horns (hypertrophy of the occipitomastoid sutures). Hydrocephalus is an early manifestation in patients with MPSIH, and prompt recognition and treatment can potentially prevent neurocognitive decline or even mortality.

#14

A total of 66 patients with MPSIH treated with hematopoietic stem cell transplant (HSCT) at our institution between 2008 and 2020 were retrospectively reviewed. Of those patients, 8 patients had dedicated MRVs and another 4 had high-resolution, contrast-enhanced 3D T1-weighted MPRAGE images with sufficient detail to allow evaluation of the venous sinuses. The venograms were obtained in accordance with our institution's existing stem cell transplant protocol.

#15

All 12 patients with sufficient imaging demonstrated some degree of venous sinus stenosis and posterior fossa horns, with an average age of 3.1 years at the time of the MRV (Online Supplemental Data). Eleven of the 12 patients had emissary veins or venous plexuses draining from either the sigmoid sinus, torcula, superior sagittal sinus, or jugular bulb (Fig 1). Nine of the 12 patients had an OP measured with a mean of 2.4 cm

patient was found to have acute hydrocephalus 22 days after HSCT, for which a VP shunt was eventually placed, and this patient's MRV was obtained before HSCT as part of the pretransplantation work-up.

#17

A large rose-tree stood near the entrance of the garden: the roses growing on it were white, but there were three gardeners at it, busily painting them red.

Alice thought this a very curious thing, and she went nearer to watch them, and just as she came up to them she heard one of them say, "Look out now, Five ! Don't go splashing paint over me like that !"

#18

In adult patients with idiopathic intracranial hypertension, various degrees of venous sinus stenosis are seen, and alleviation of intracranial hypertension via venous sinus stent placement in those patients supports the hypothesis that elevation in venous pressure restricts CSF resorption. Furthermore in those patients, alternative cerebral venous drainage has been reported, and occipital emissary veins and extrajugular venous drainage have been described as hallmarks of idiopathic intracranial hypertension.