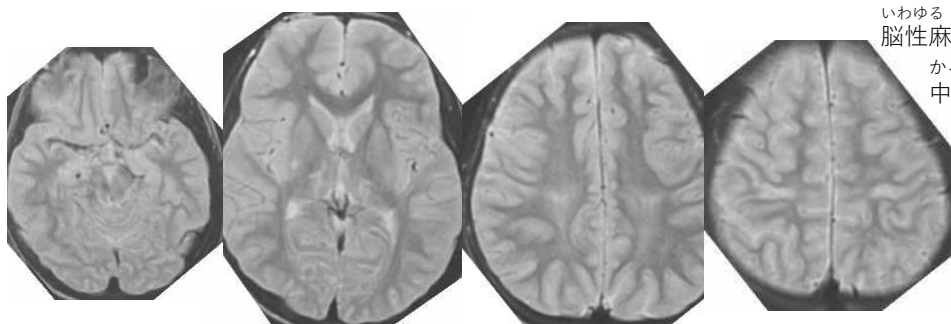


満期低酸素性虚血性脳症重症例の運動障害

横地健治

1

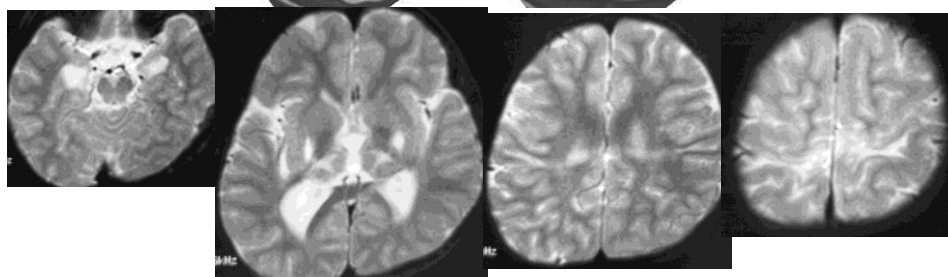
Kenji Yokochi. Clinical profiles of children with cerebral palsy having lesions of the thalamus, putamen and/or peri-Rolandic area. Brain Dev 2004;26:227-32.



いわゆる
脳性麻痺アテトーゼ
からうじて歩く
中等度の知的障害

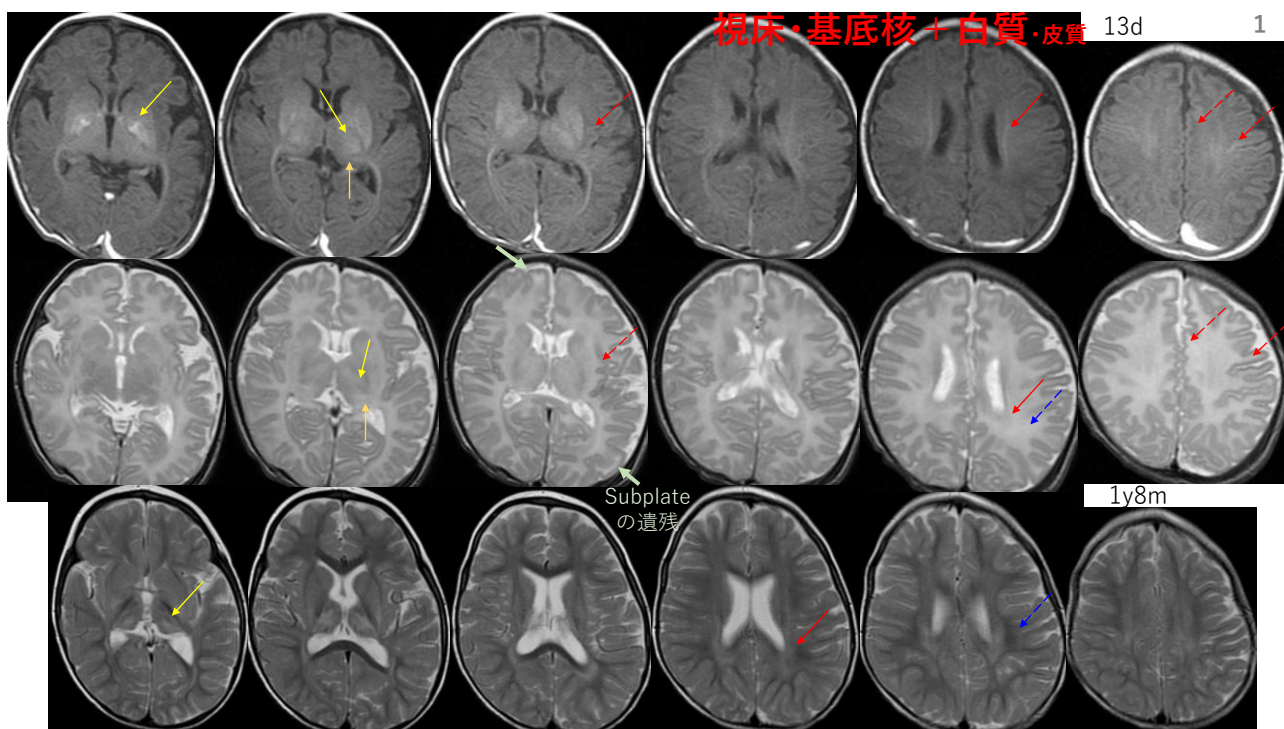


横地分類A1

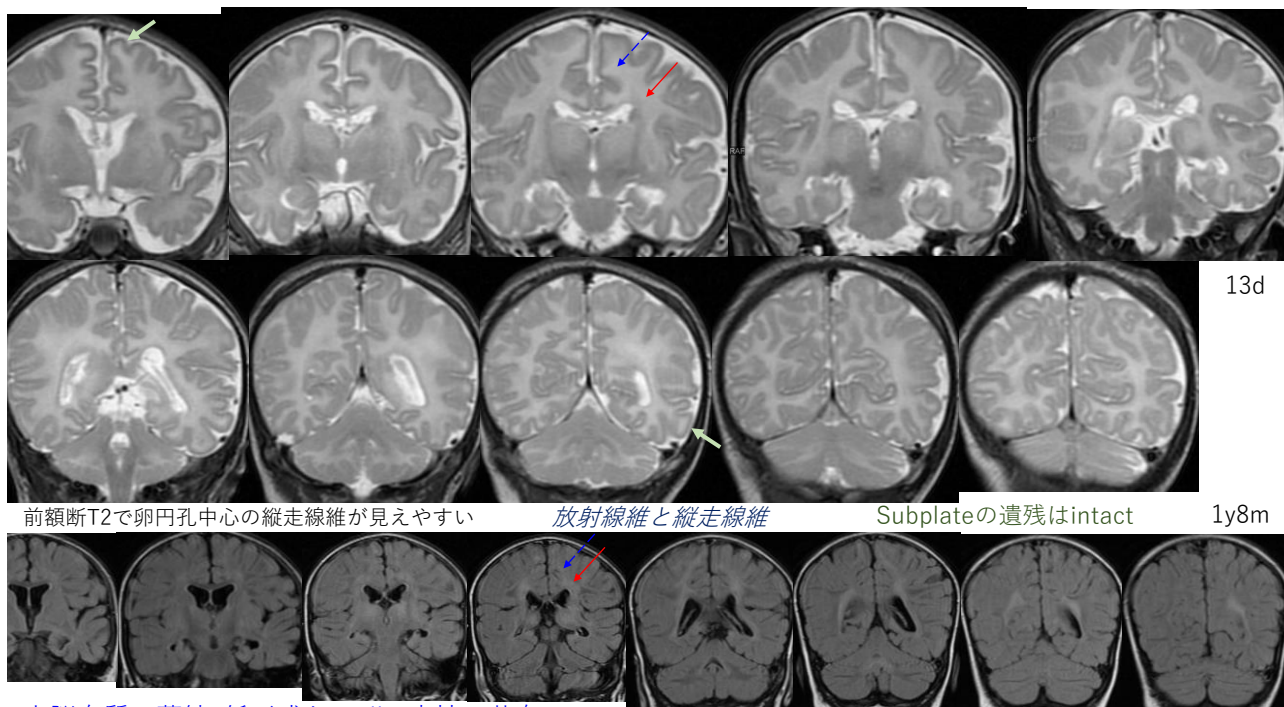


・ 白質萎縮低形成 ・ 中心溝以外の皮質病変 を無視していた

2

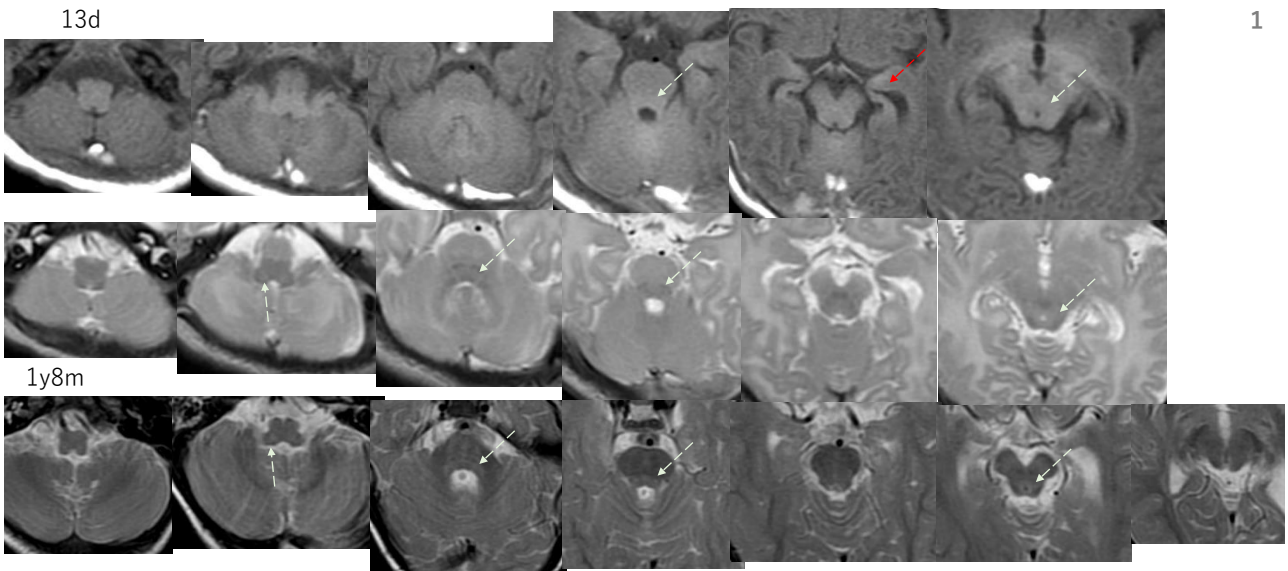


3



大脳白質の萎縮・低形成と Waller変性の共存

4



あやしい脳幹病変

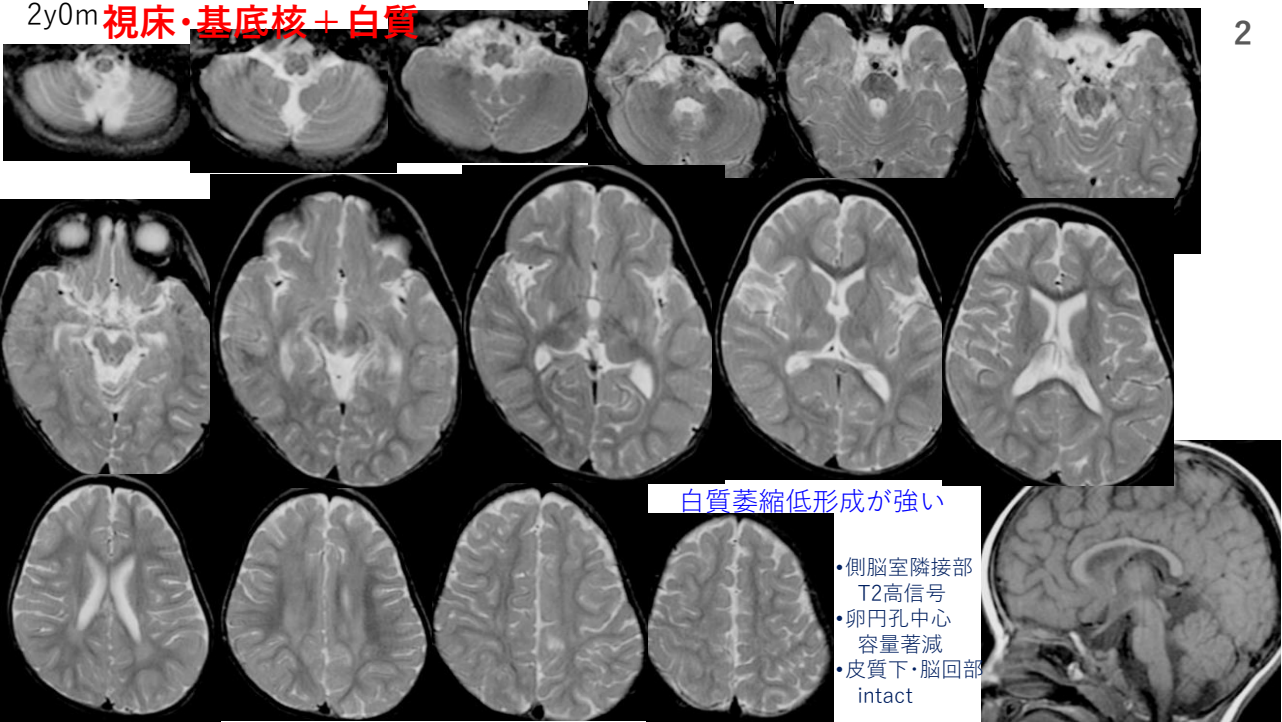
5



いわゆるアトーゼの重症

6

2y0m 視床・基底核 + 白質



2

7

Compartmental organization of the brain with related axonal pathways.

Deep (periventricular) compartment

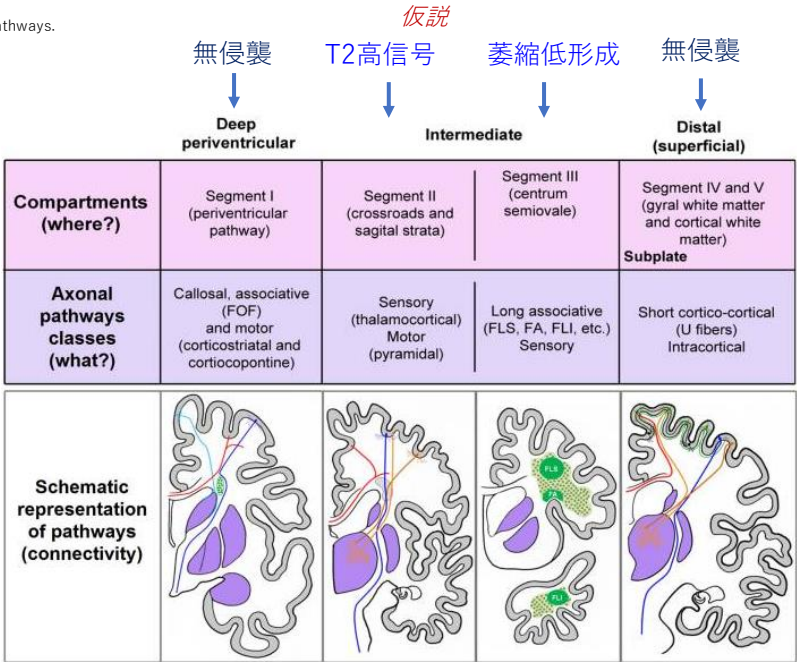
- Corpus callosum – (segment I)
- Fronto-occipital fascicle (FOF) – (segment I)
- Cortico-striatal fibers (Muratoff's fascicle) – (segment I)
- Fronto-pontine pathways – (segment I)

Intermediate compartment

- Crossroads of projection pathways – (segment II) Ila
 - Thalamocortical fibers
 - Cortico-fugal fibers
 - Callosal radiation
 - Associative sagittal fibers
- Sagittal axonal strata – (segment II) IIb
 - Thalamocortical pathways
 - Basal forebrain cholinergic afferents
 - Cortico-cortical associative fiber system
- Centrum semiovale – (segment III)
 - Long associative fiber system
 - Projection fibers

Superficial compartment

- Gyral white matter – (segment IV)
 - Short cortico-cortical fibers
 - U-fibers
- Subplate/subplate remnant
 - Growing front of all afferent pathways
 - Short cortico-cortical fibers
- Intracortical fibers – (segment V)

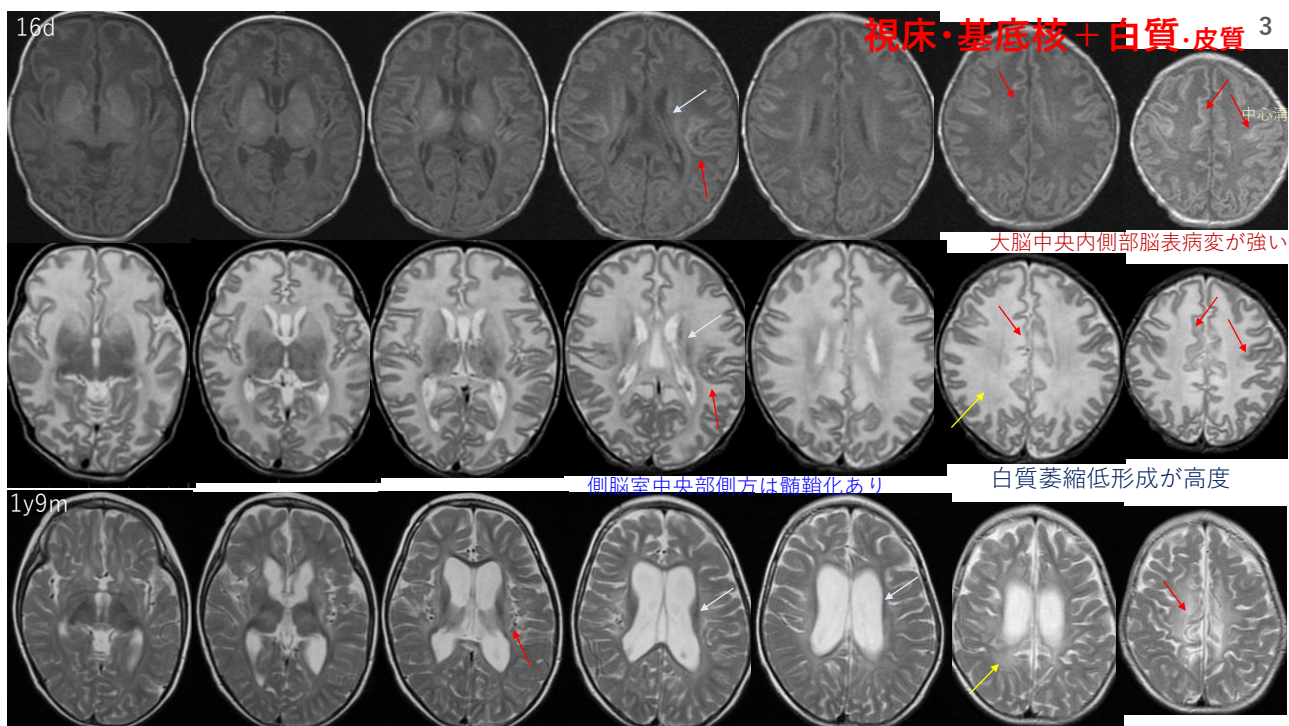


Ivica Kostović

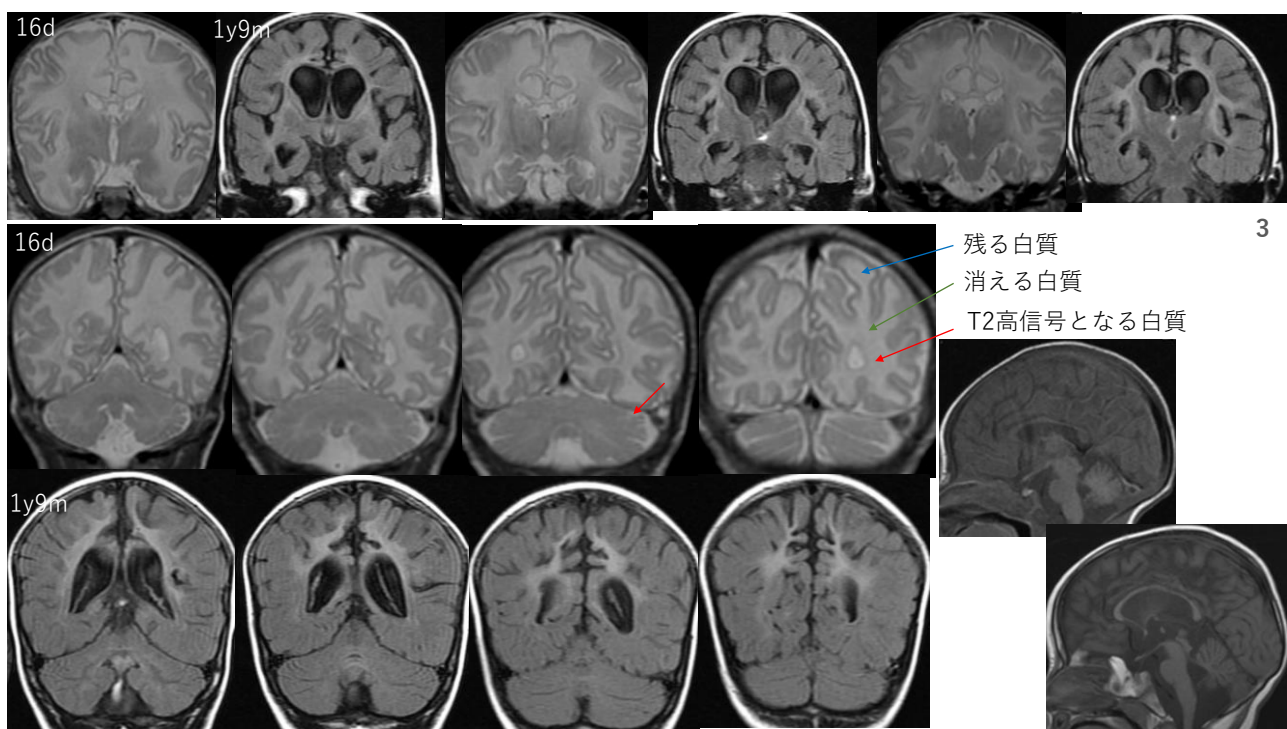
8



9

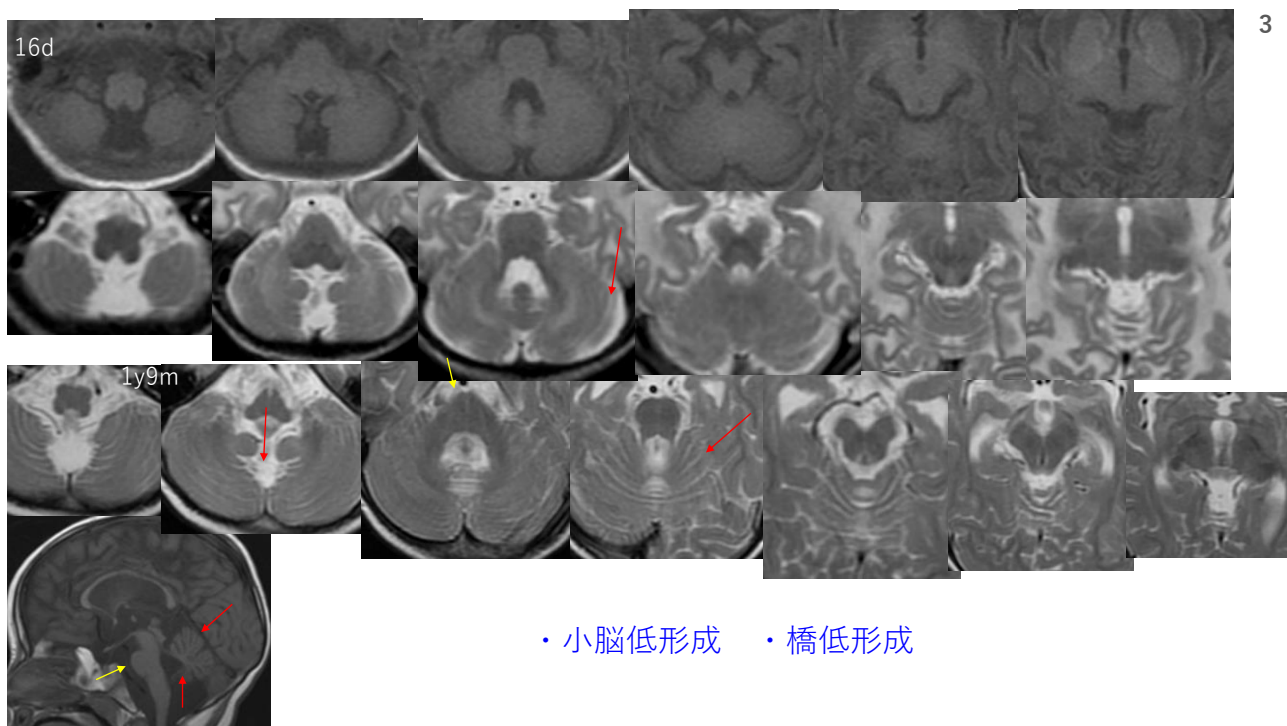


10



3

11

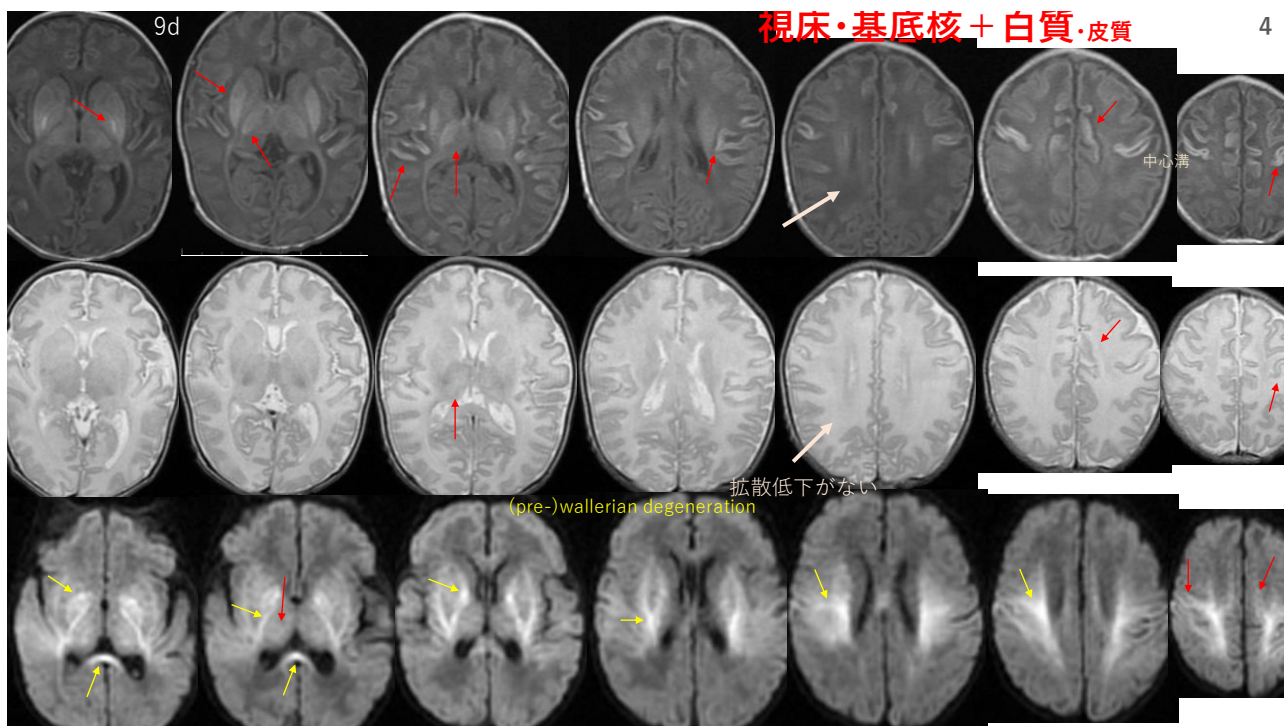


3

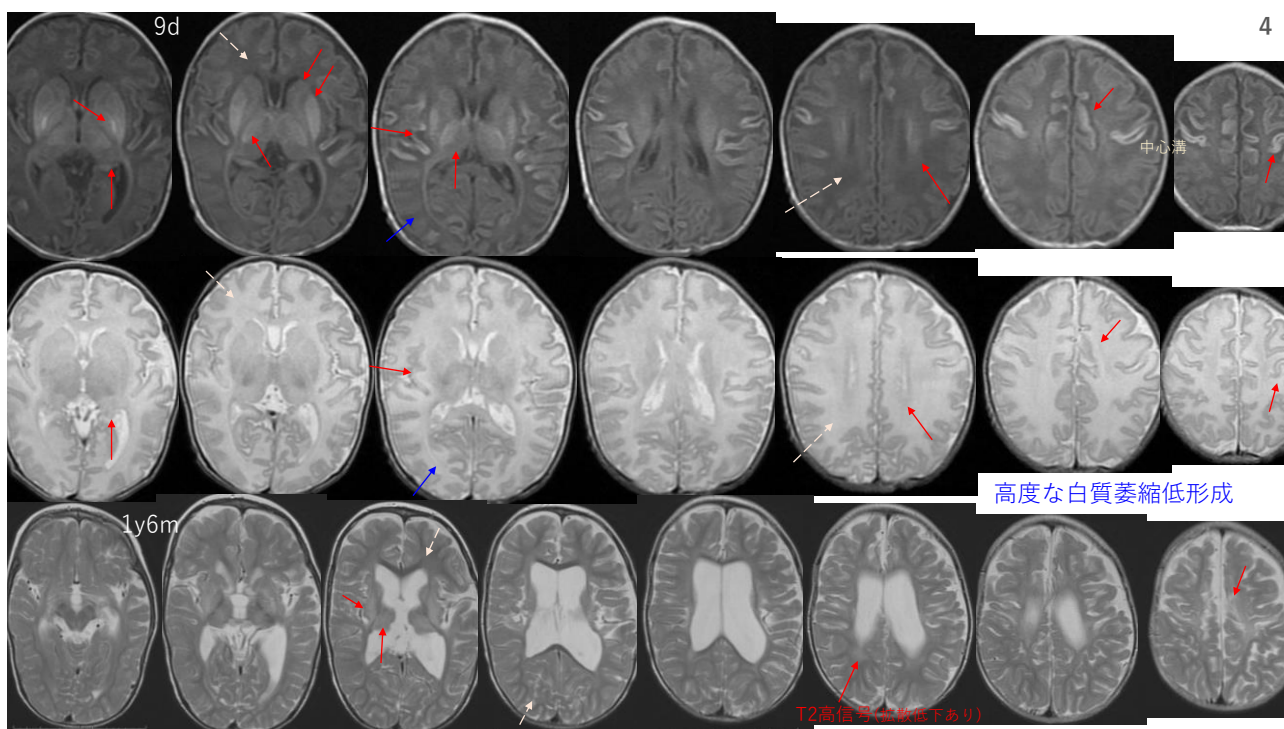
12



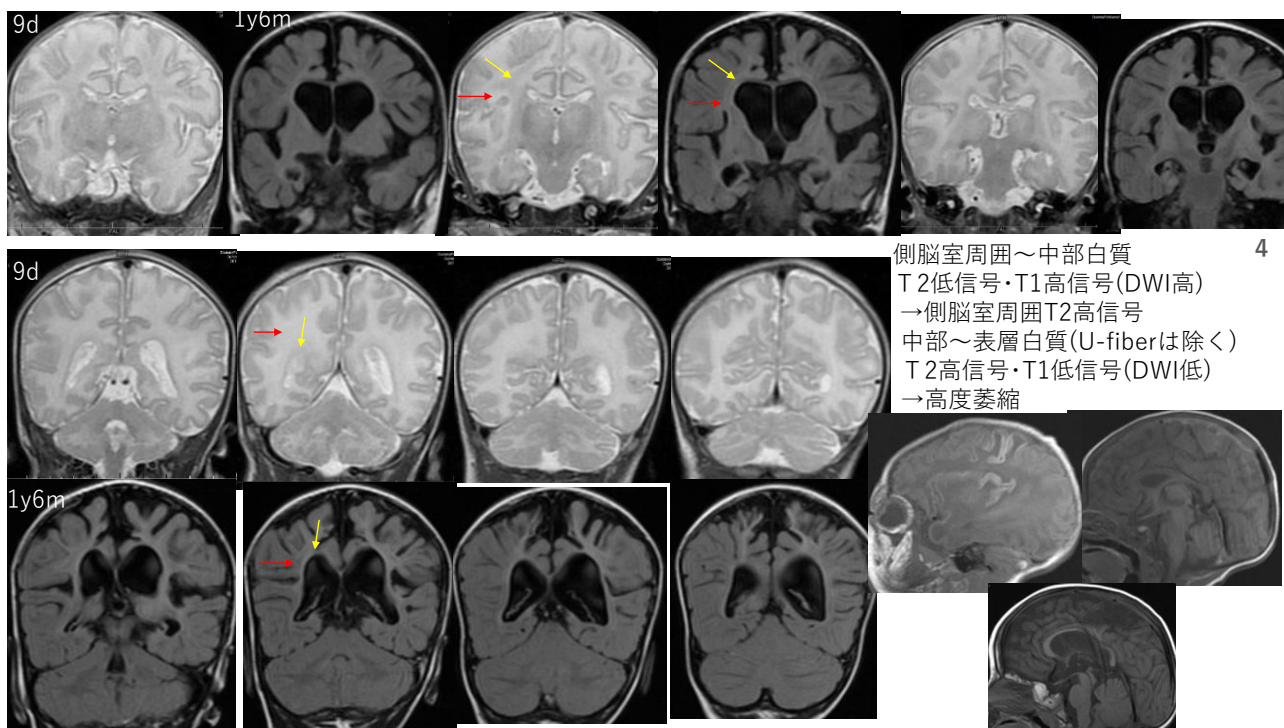
13



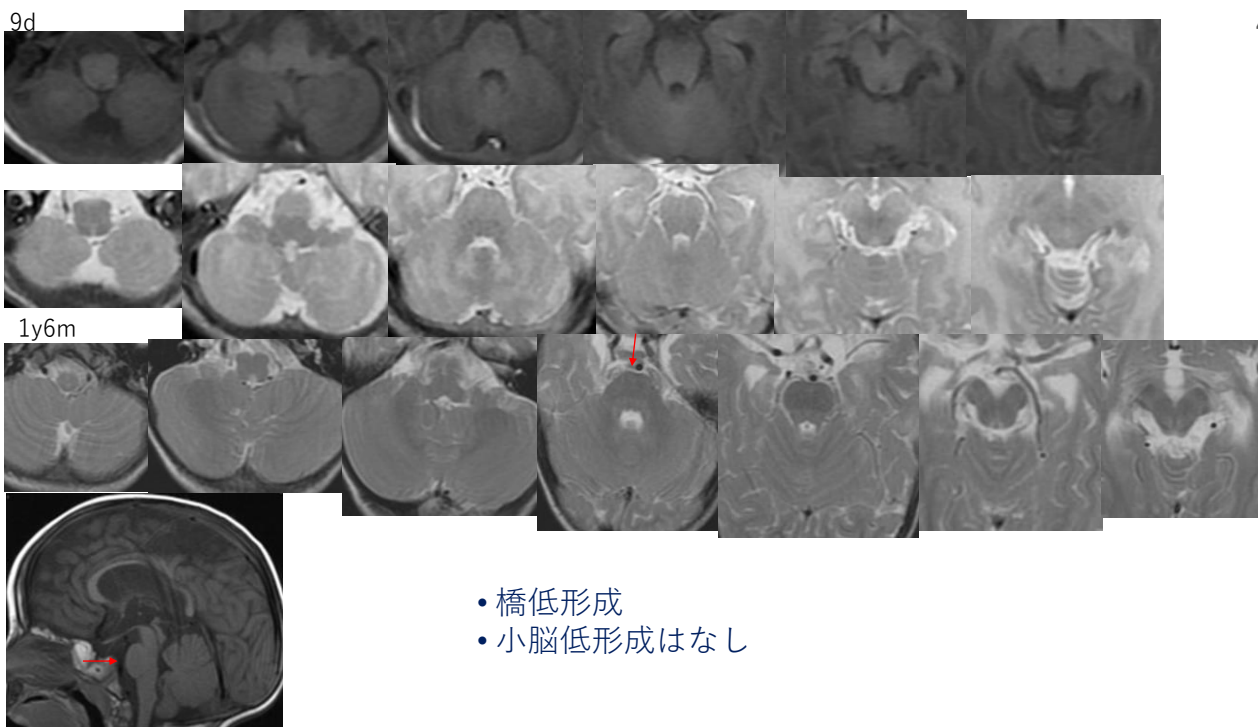
14



15



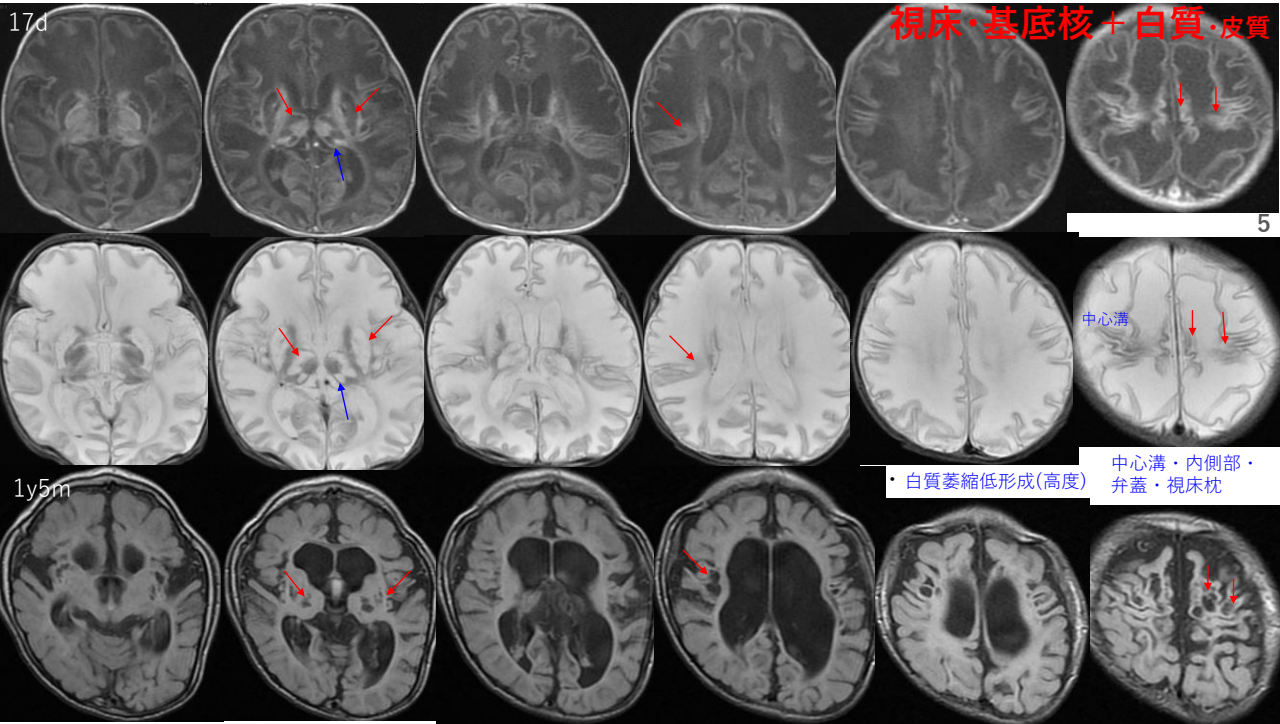
16



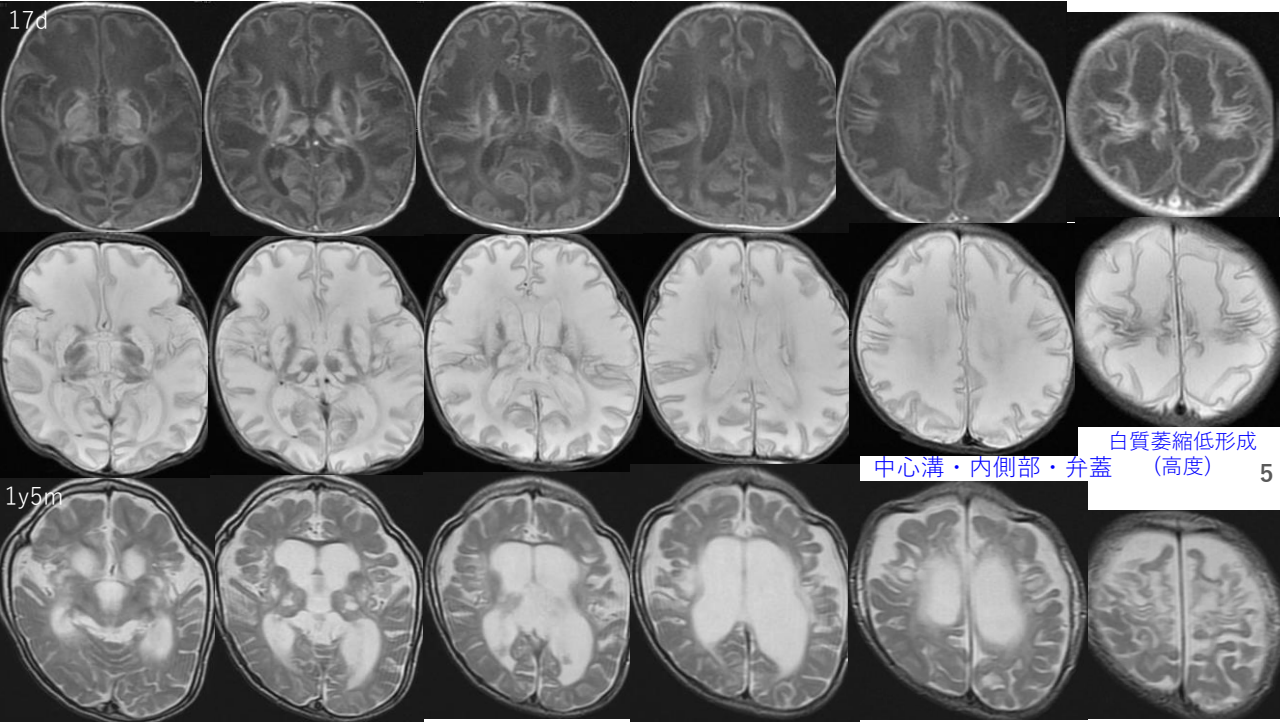
17



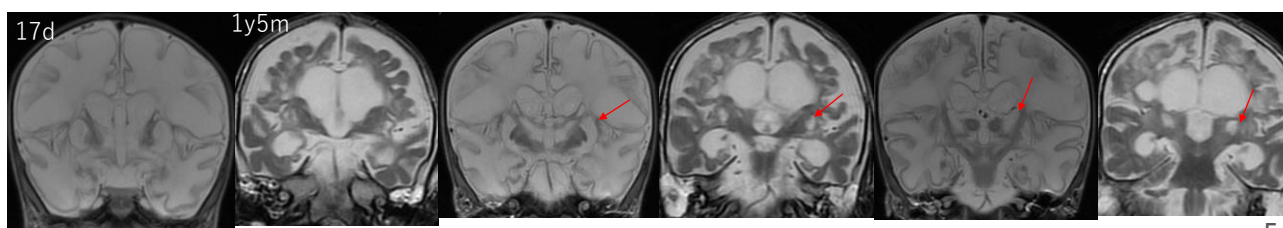
18



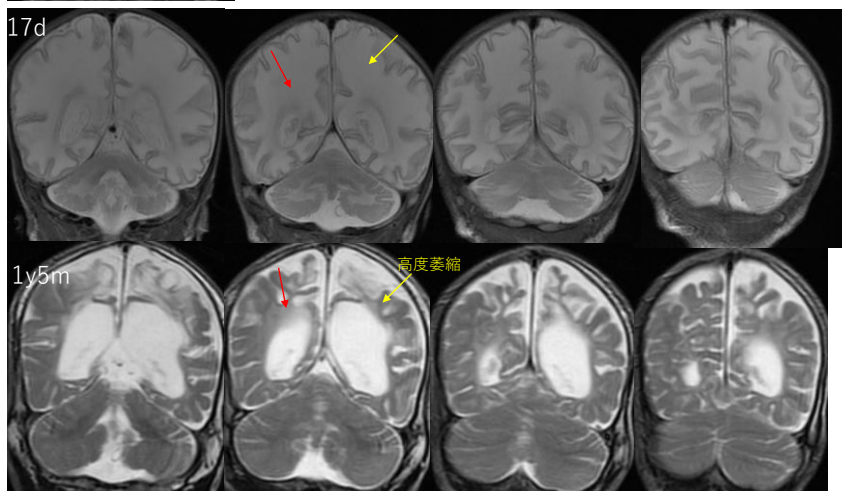
19



20



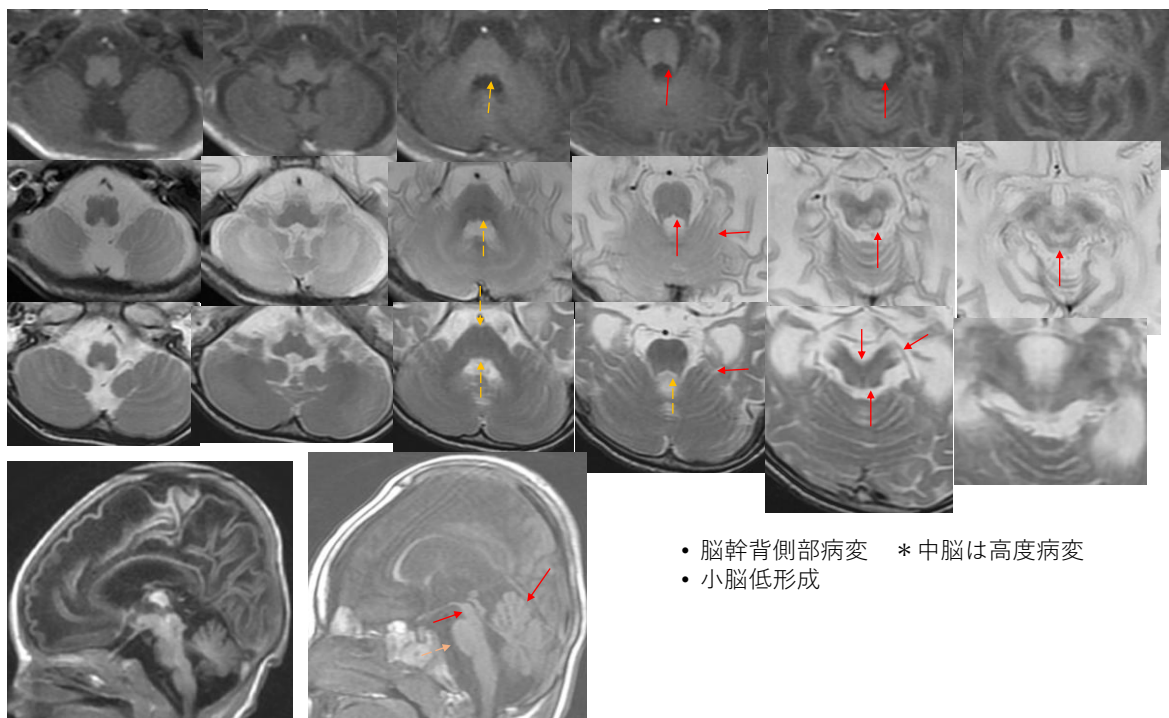
5



側脳室周囲～中部白質
T2低信号・T1高信号 (DWI高)
→側脳室周囲T2高信号

中部～表層白質(U-fiberは除く)
T2高信号・T1低信号 (DWI低)
→高度萎縮

21

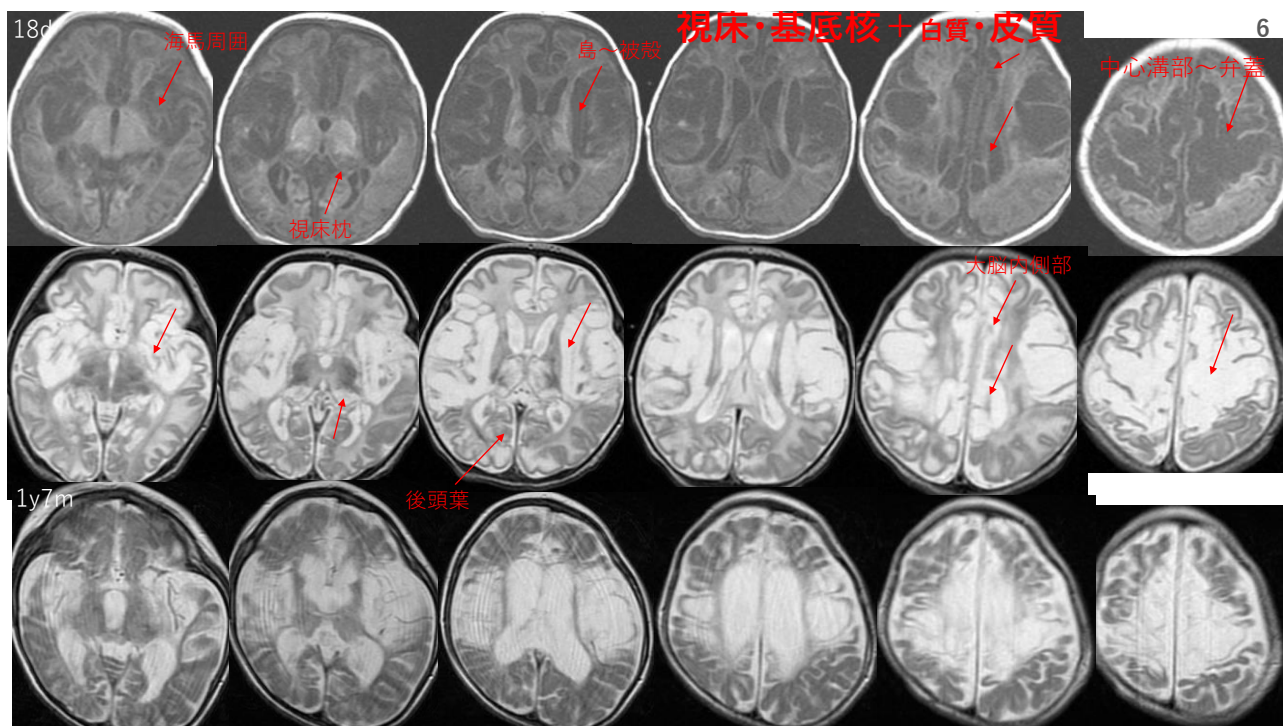


- 脳幹背側部病変 * 中脳は高度病変
- 小脳低形成

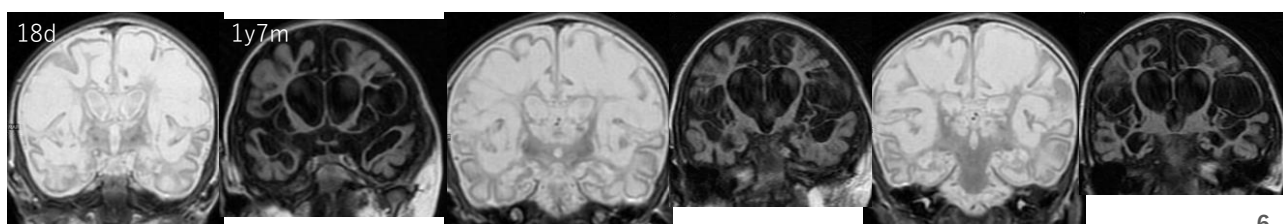
22



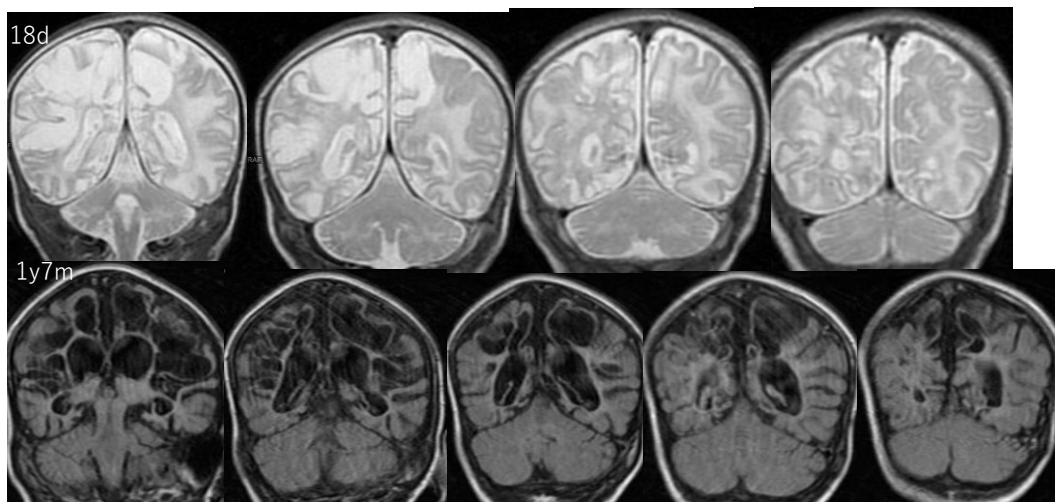
23



24

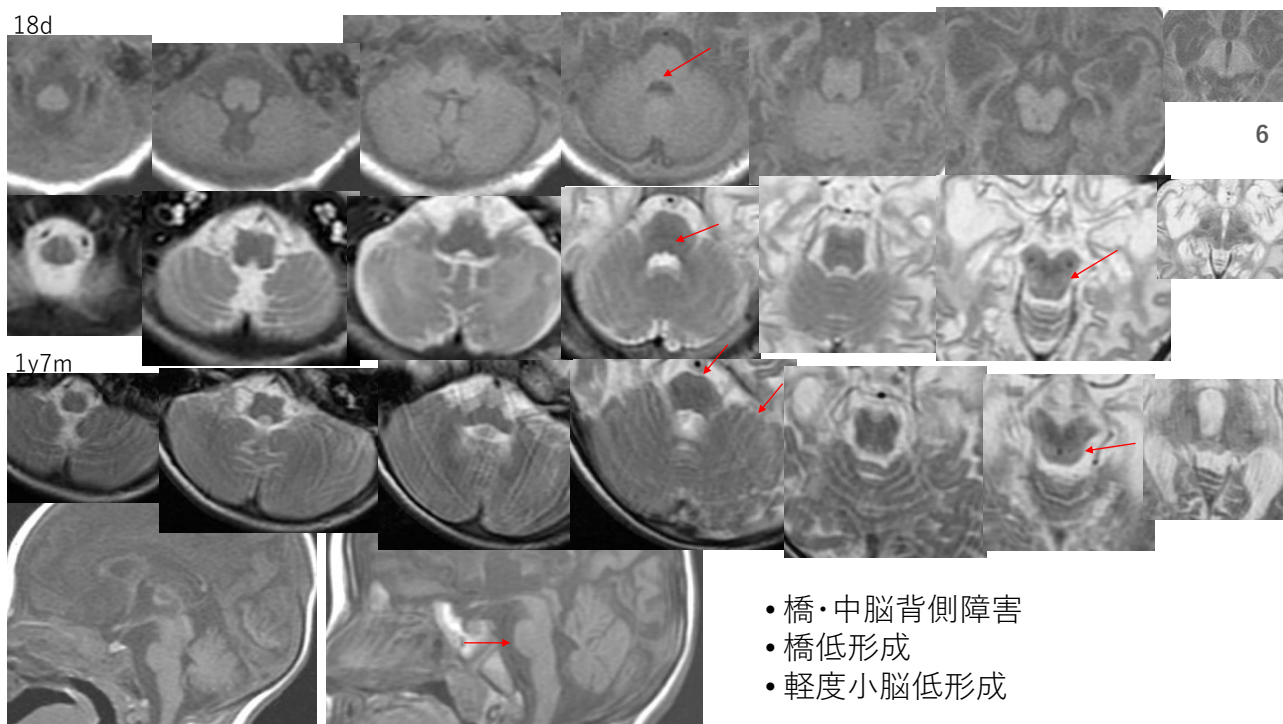


6



白質萎縮低形成
(高度)

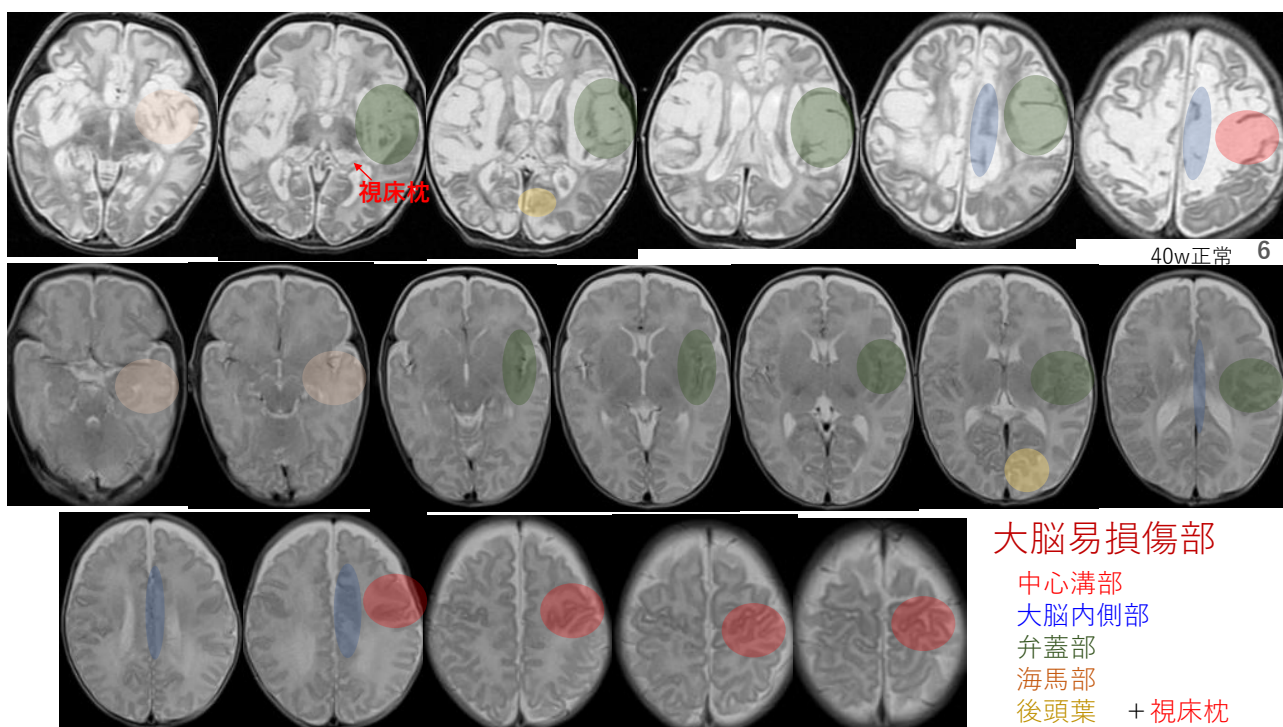
25



6

- 橋・中脳背側障害
- 橋低形成
- 軽度小脳低形成

26

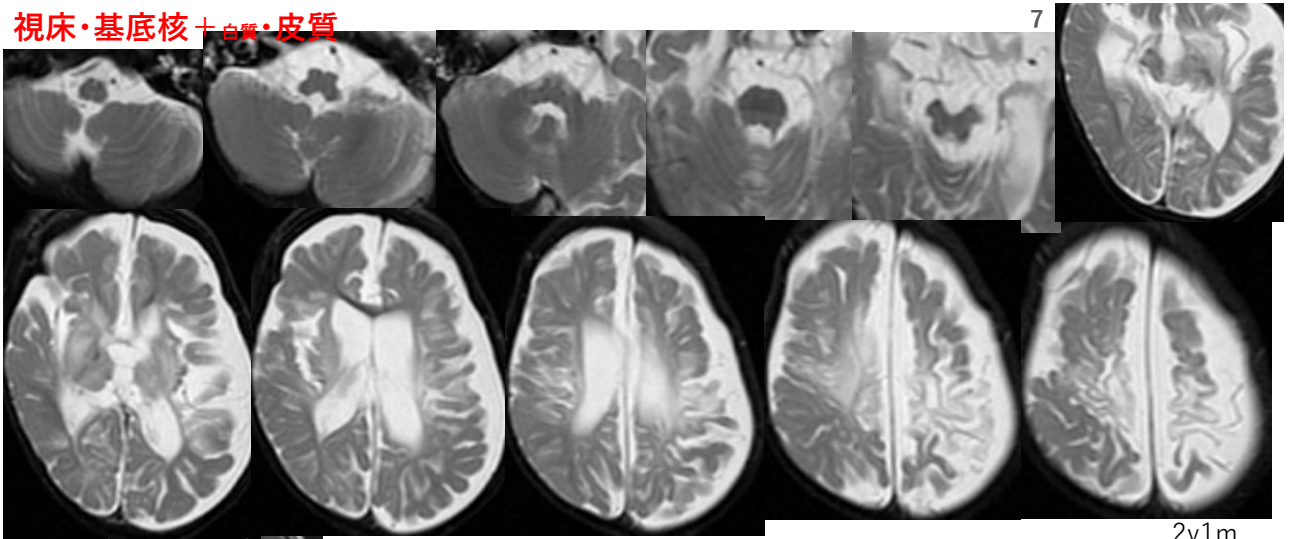


27



28

視床・基底核 十白質・皮質



2y1m

- ・視床・基底核 ・白質萎縮低形成
- ・中心溝部 ・大脳内側部 ・弁蓋部 ・海馬
- ・橋低形成 ・中脳萎縮

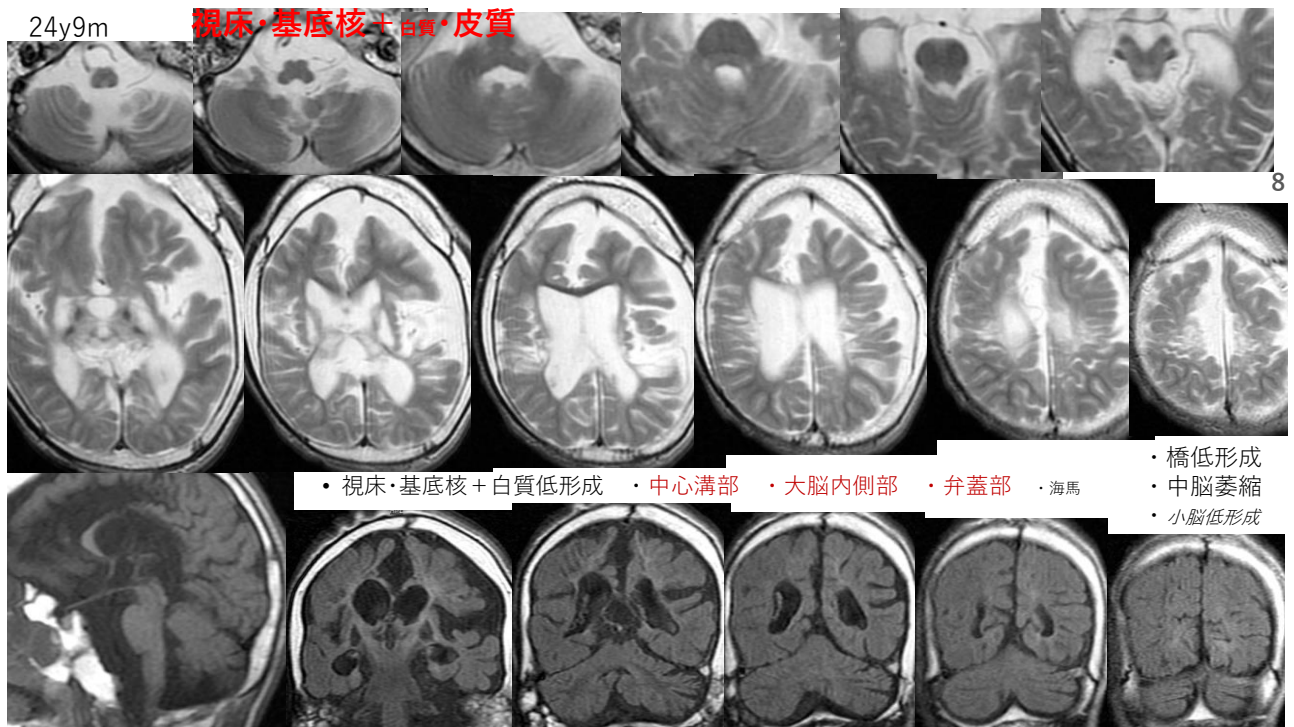
29



・多呼吸となる

・かたい屈伸 ・伸展優位 ・膝反張の進展

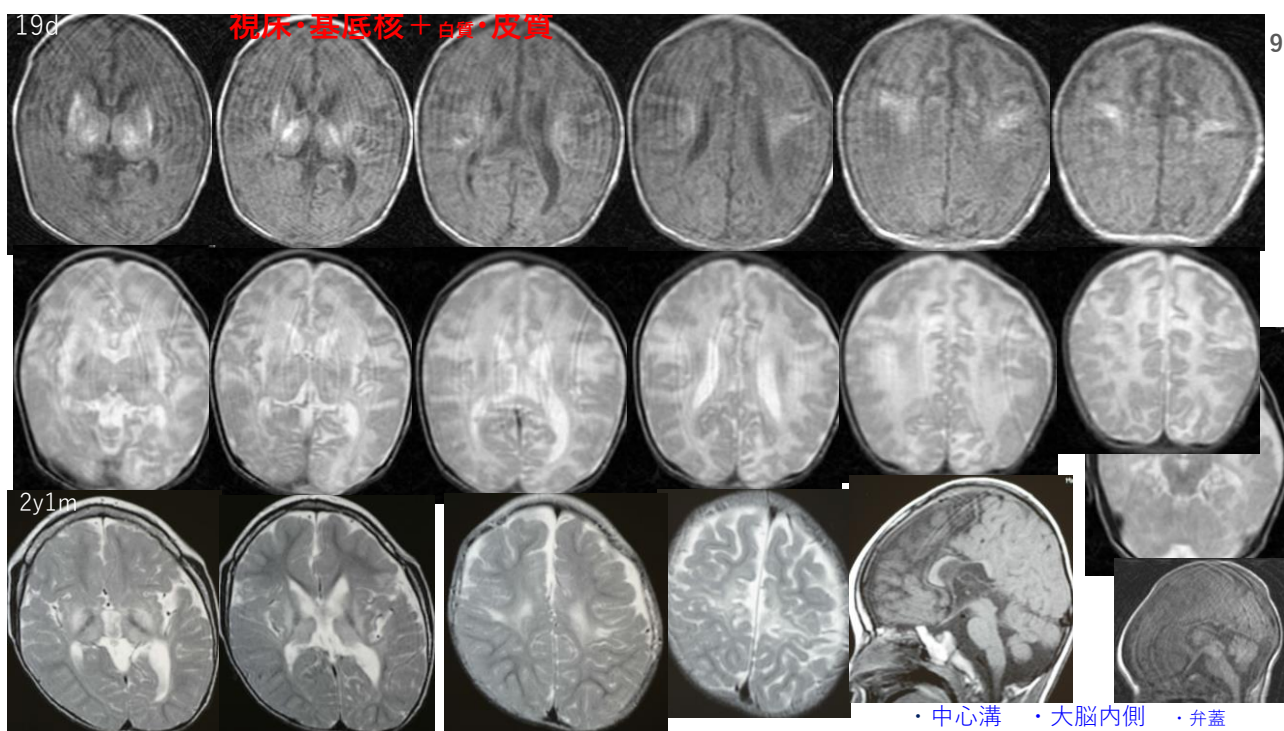
30



31



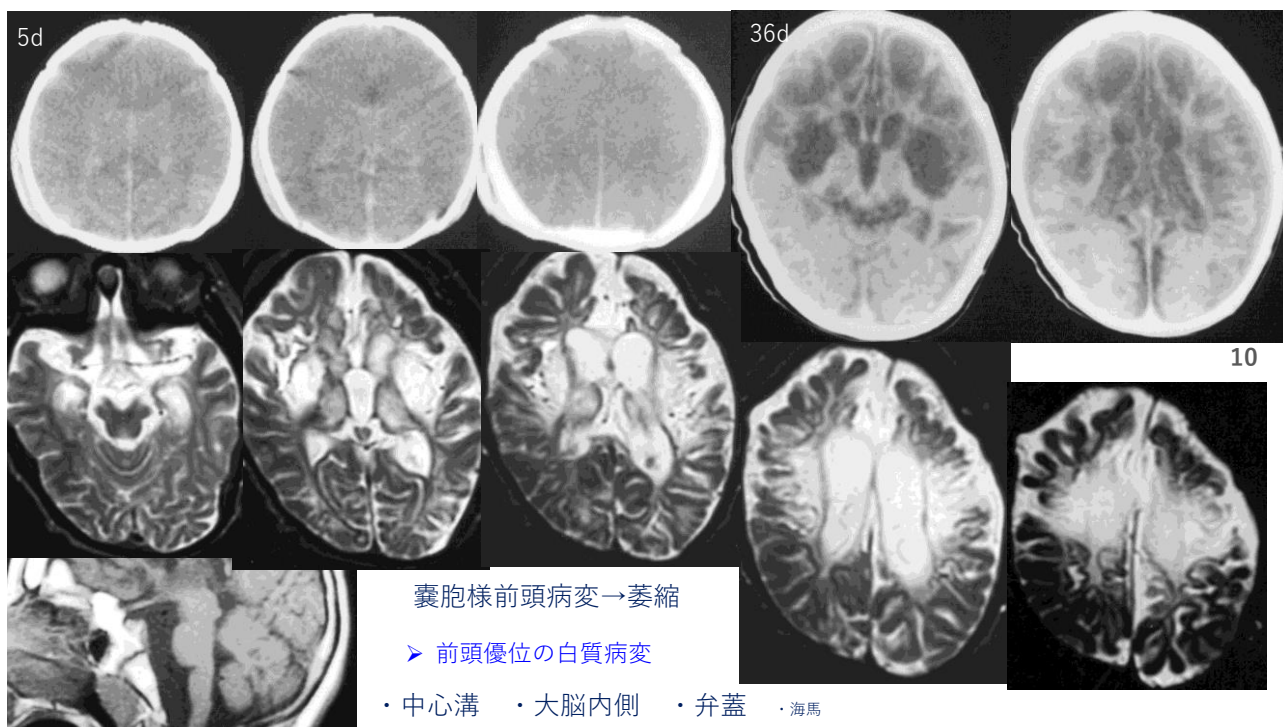
32



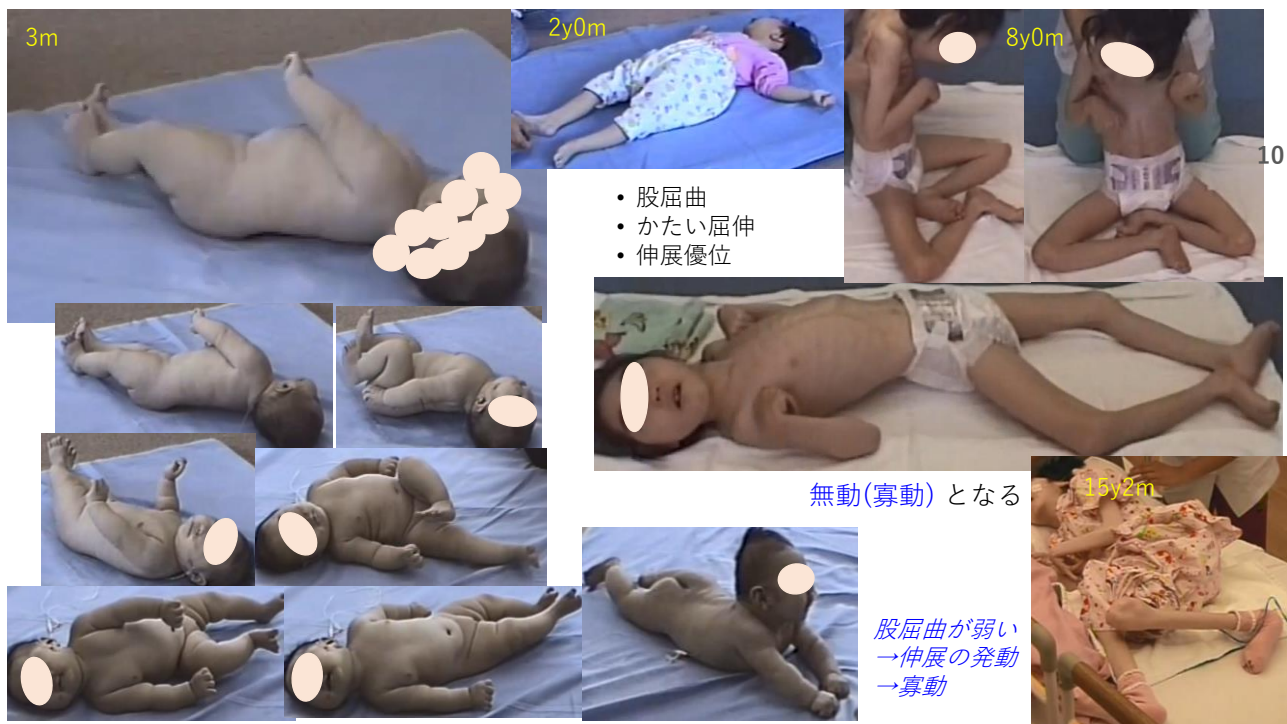
33



34

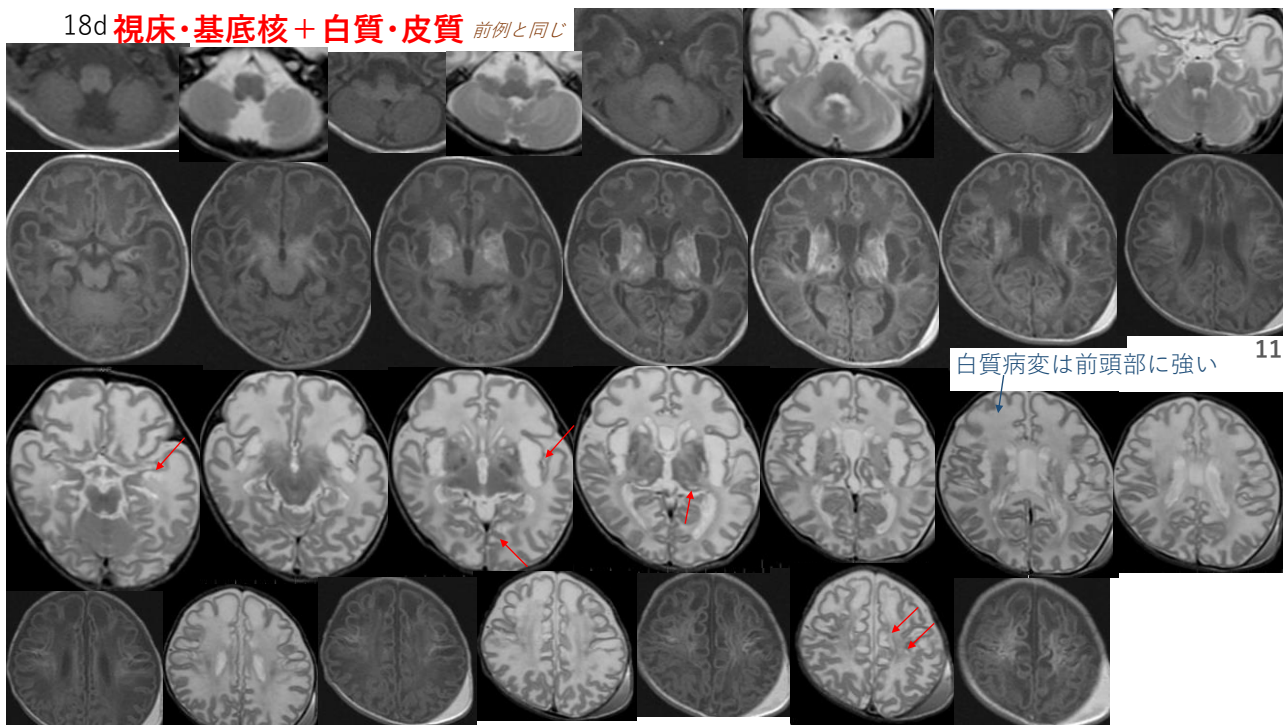


35



36

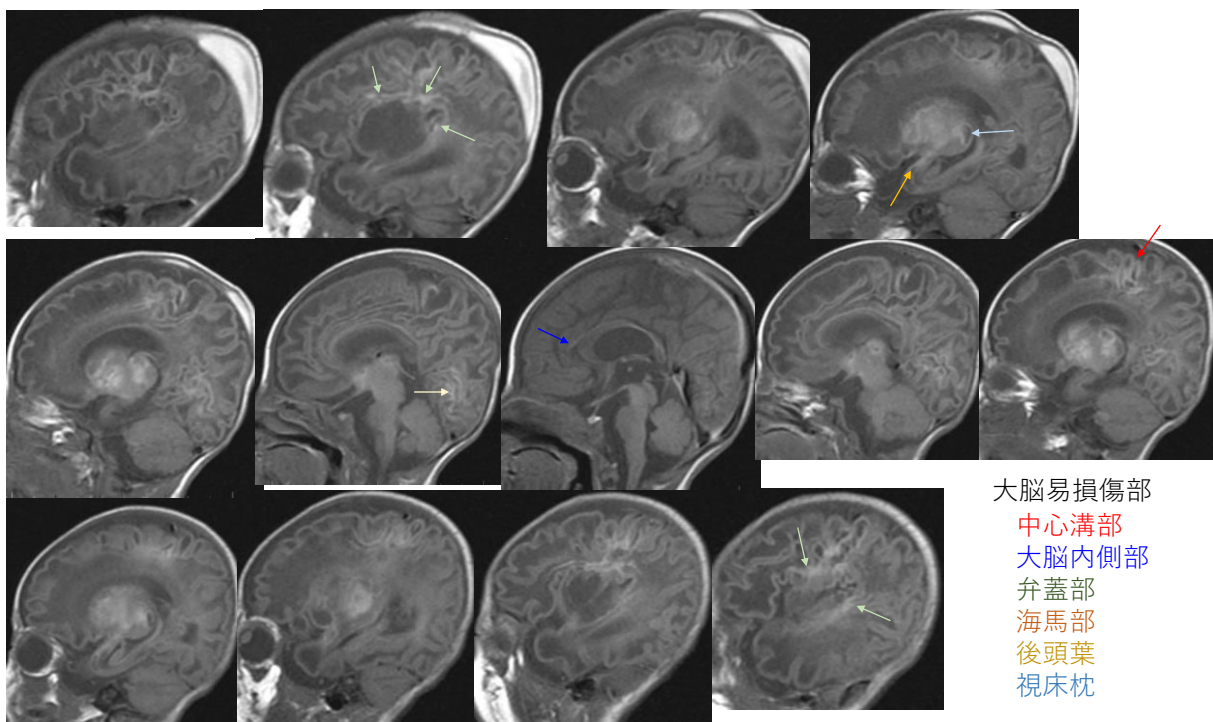
18d 視床・基底核 + 白質・皮質 前例と同じ



白質病変は前頭部に強い

11

37



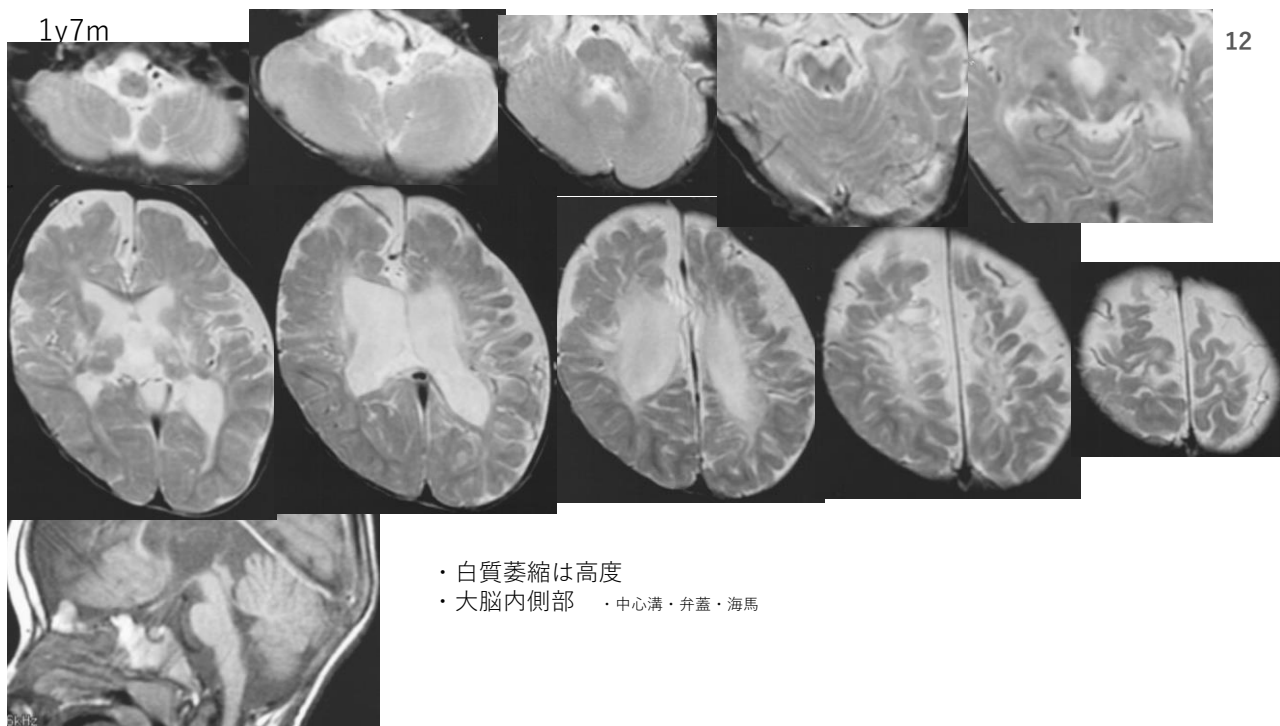
大脳易損傷部
 中心溝部
 大脳内側部
 弁蓋部
 海馬部
 後頭葉
 視床枕

11

38



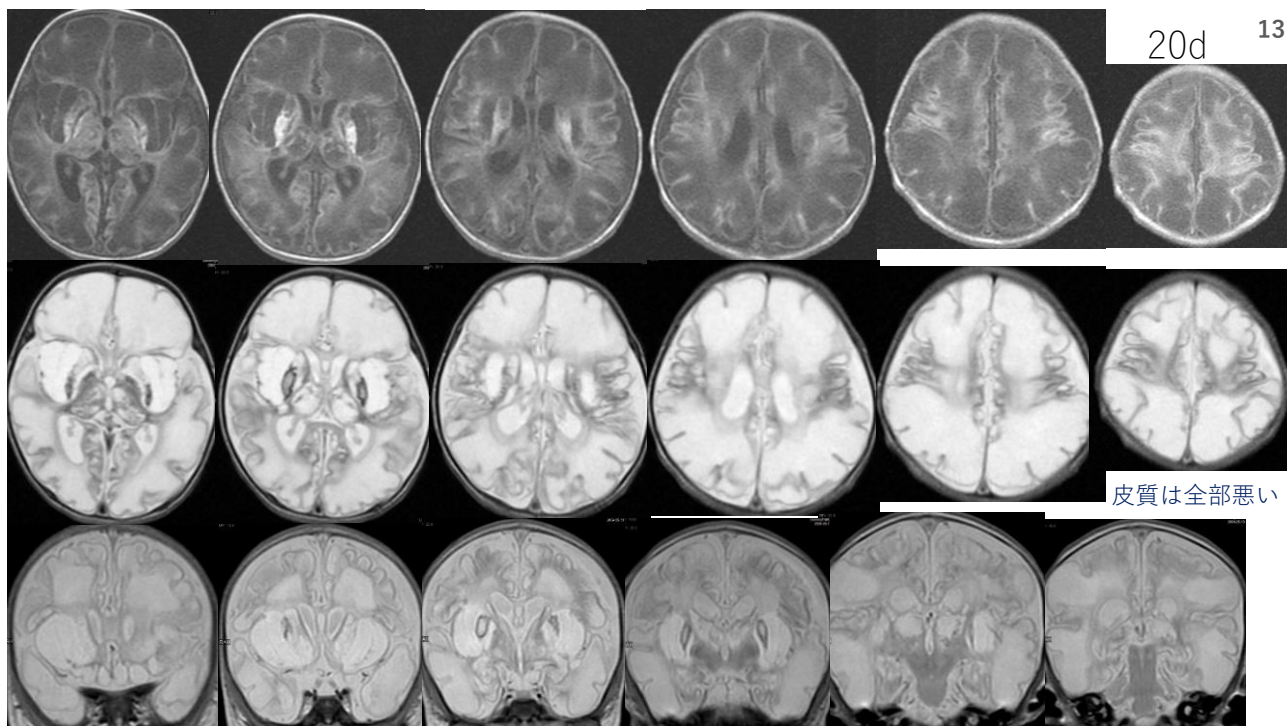
39



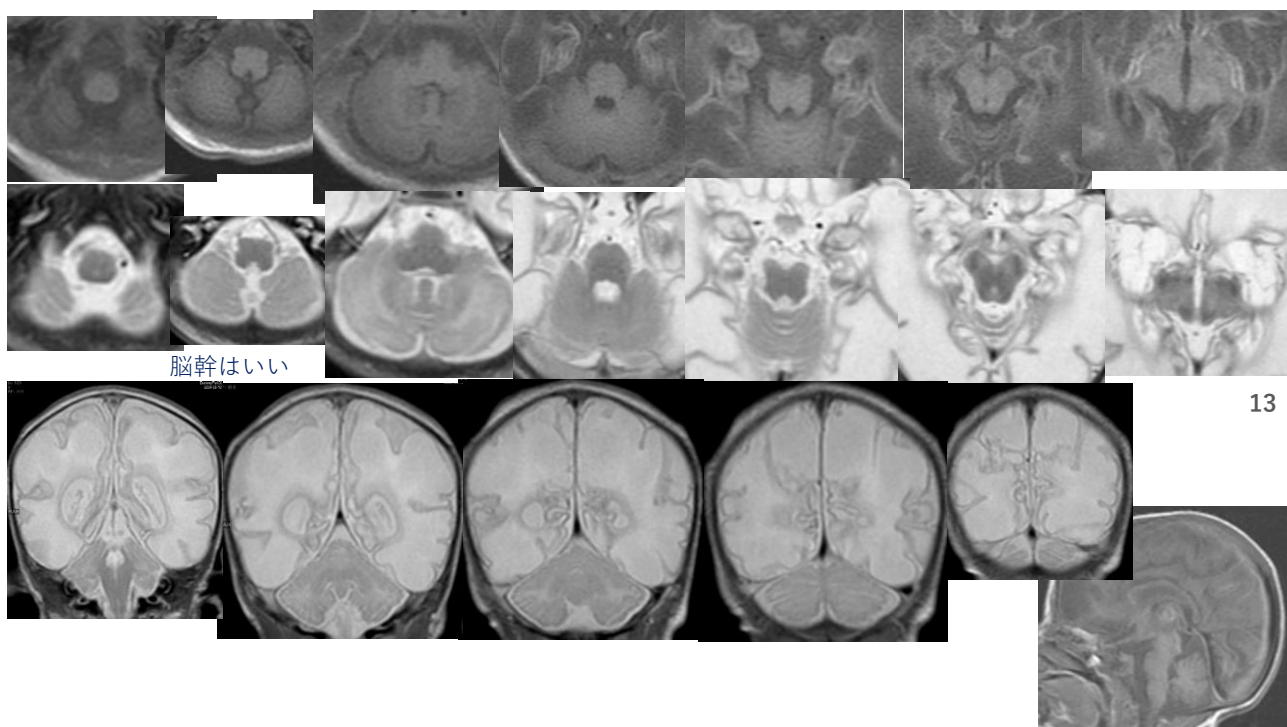
40



41



42



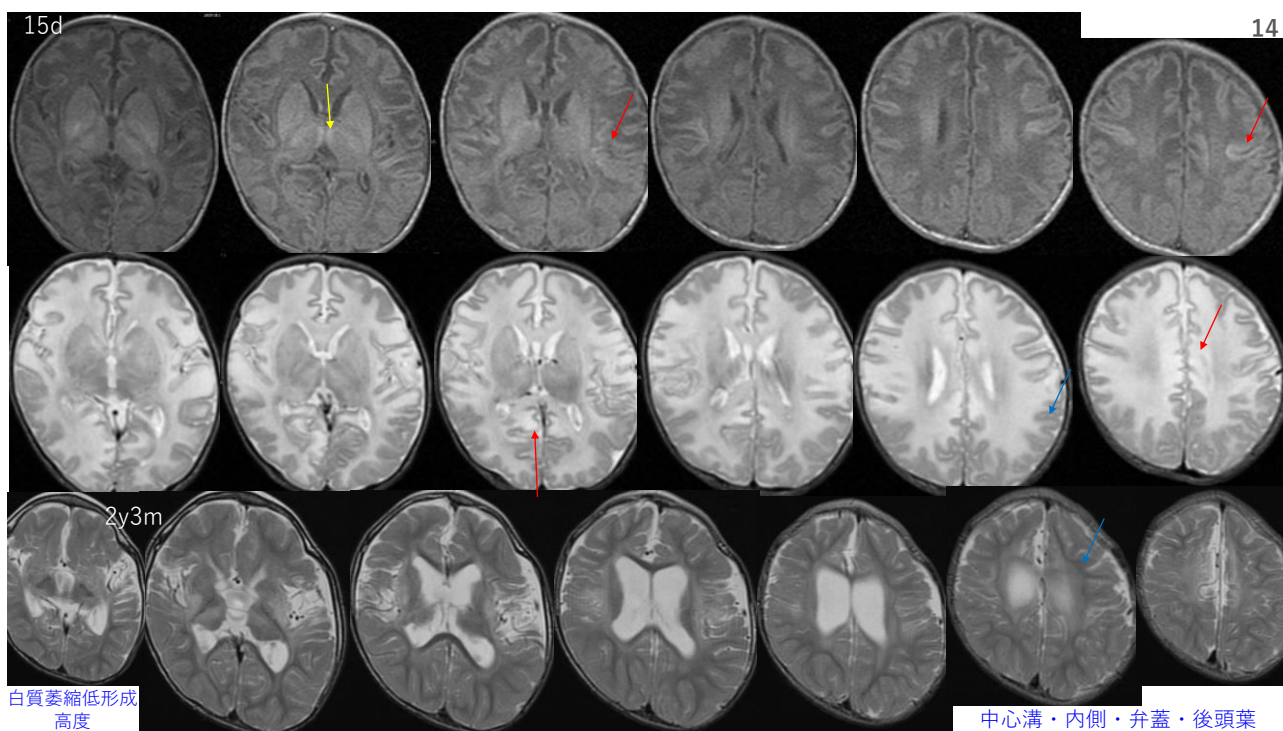
13

43

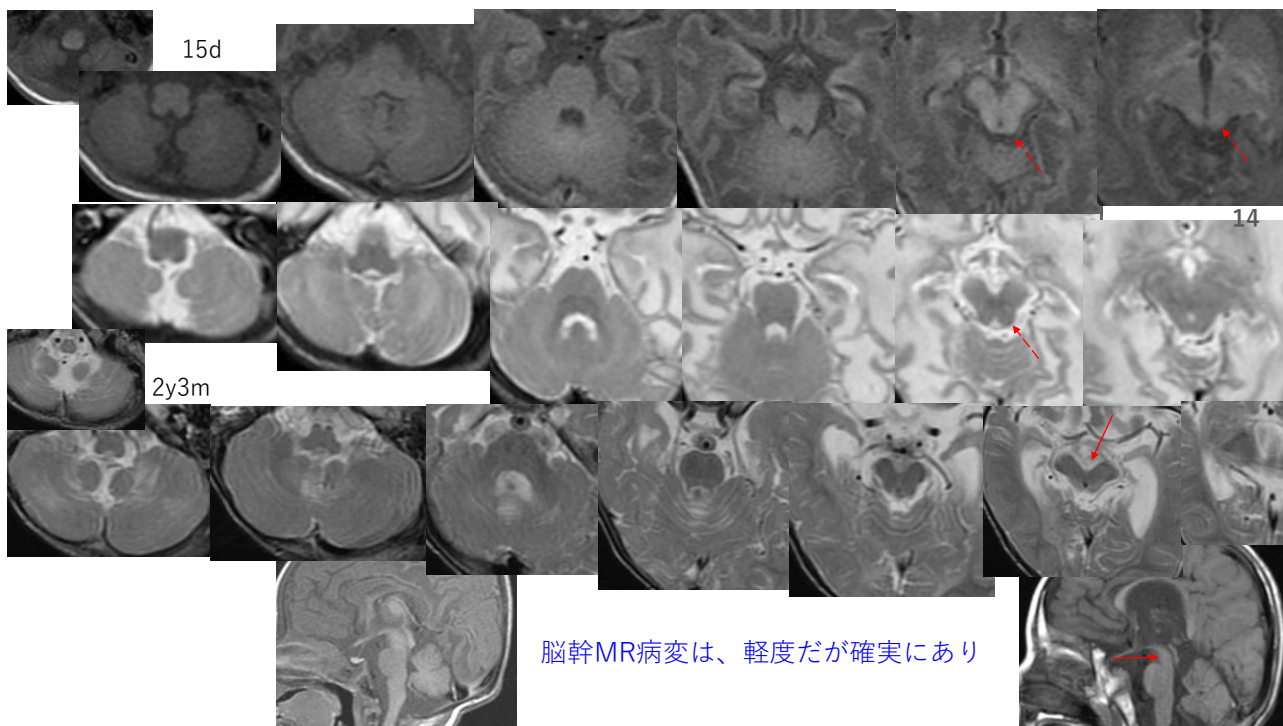


13

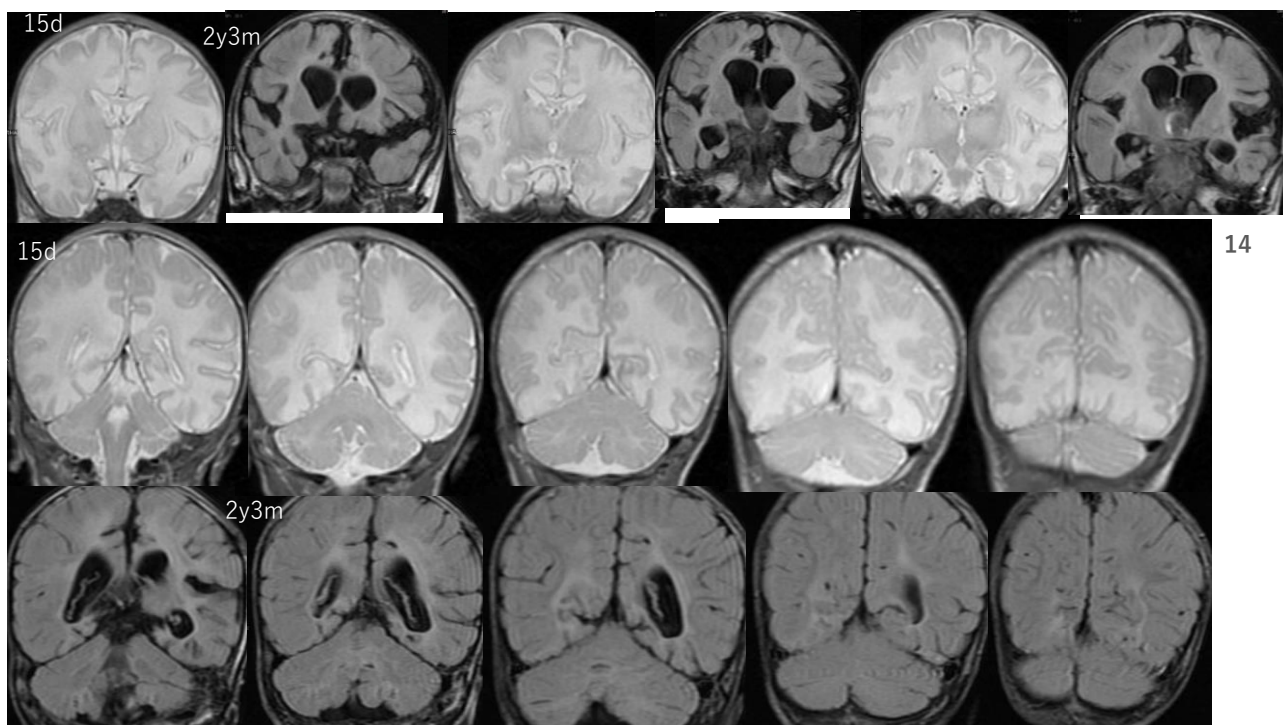
44



45



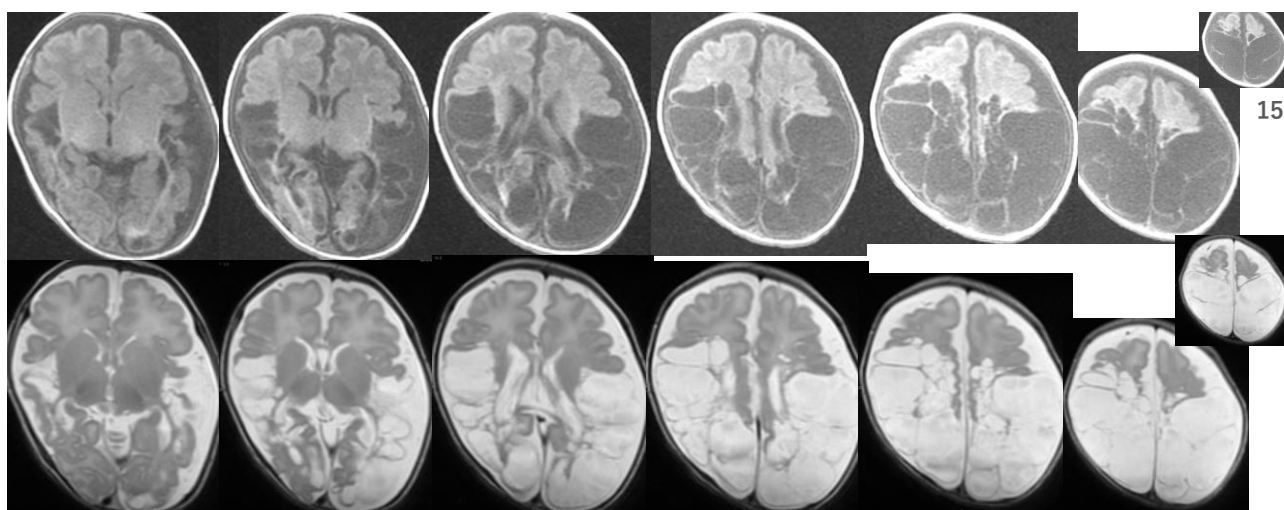
46



47



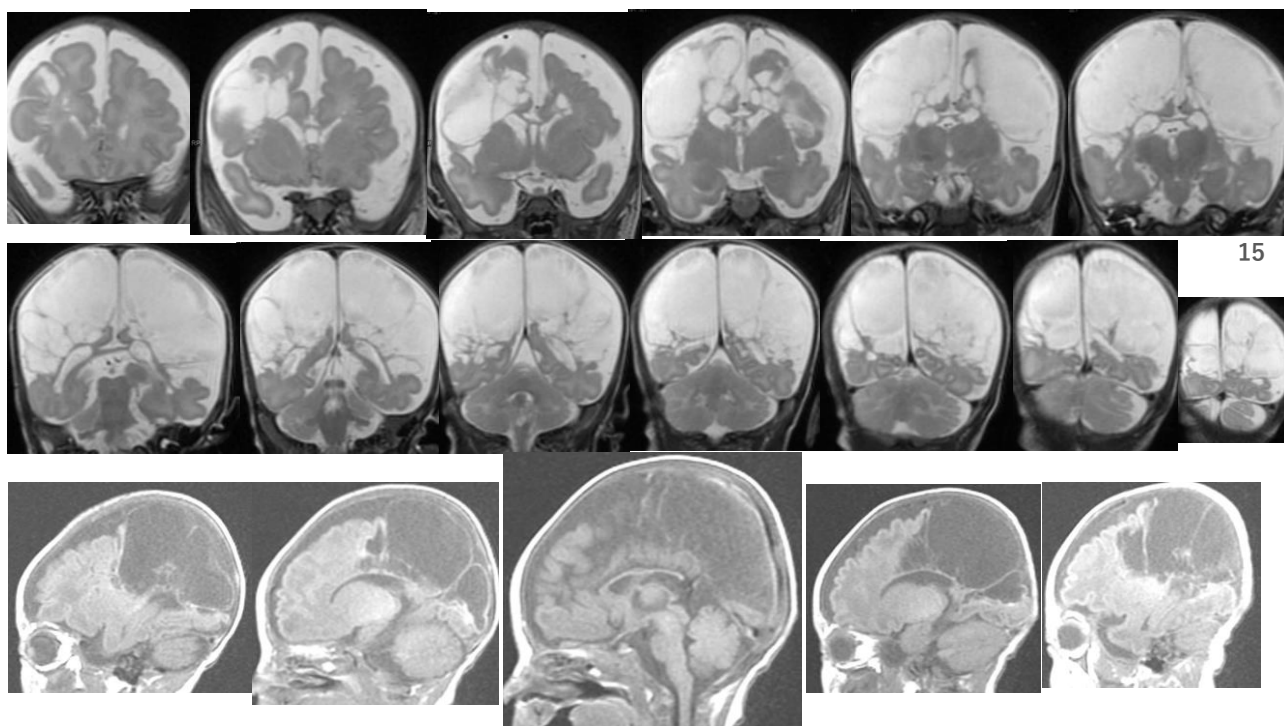
48



• PCA本幹 ・ MCA・PCA境界域 ・ MCA本幹 ・ ACA本幹 ・ ACA・PCA境界域 40d(c4d)

萎縮せず、嚢胞となる

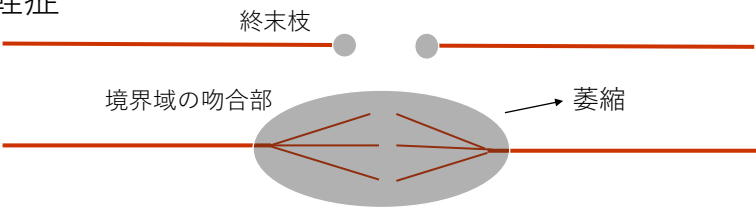
49



50

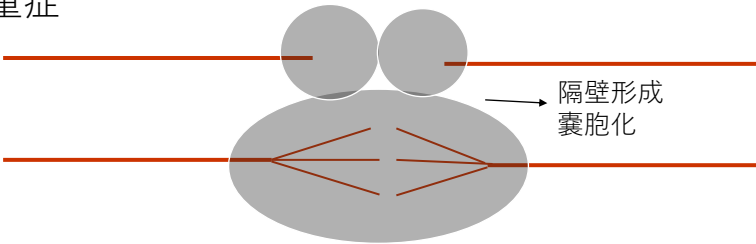
嚢胞化の成り立ち

低血流が軽症



境界域梗塞

低血流が重症



多嚢胞性脳軟化

51



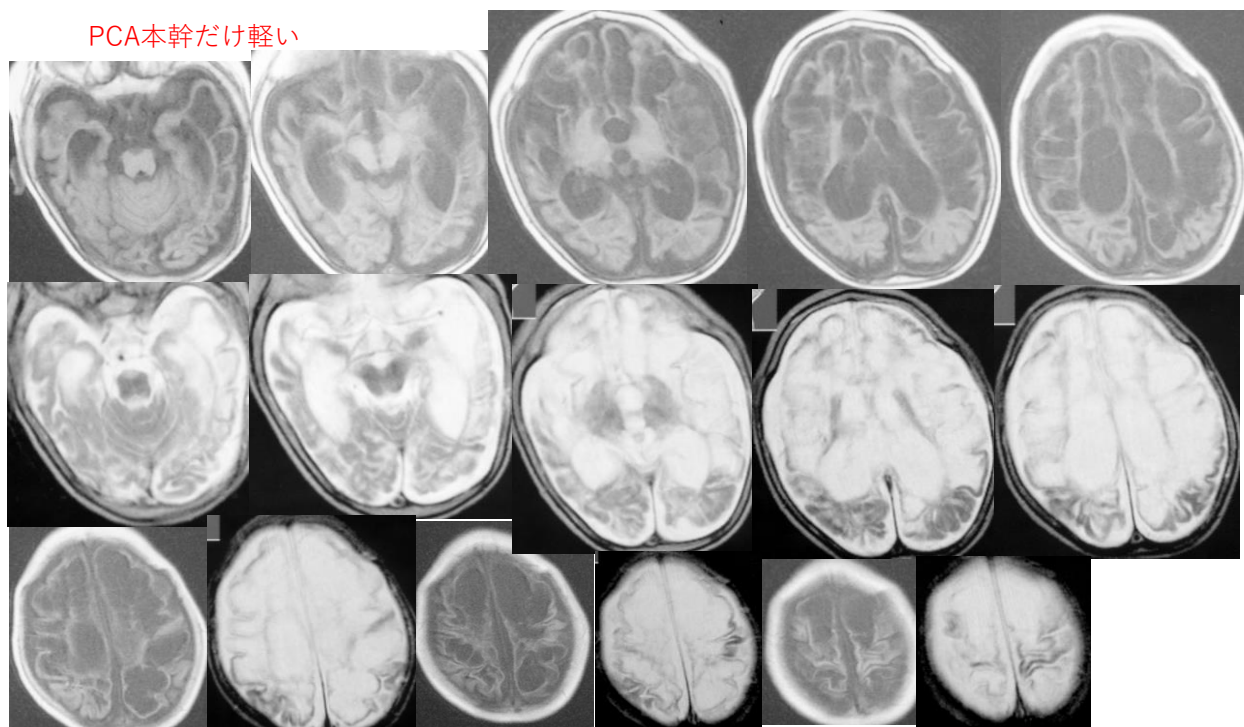
15



分離運動制限

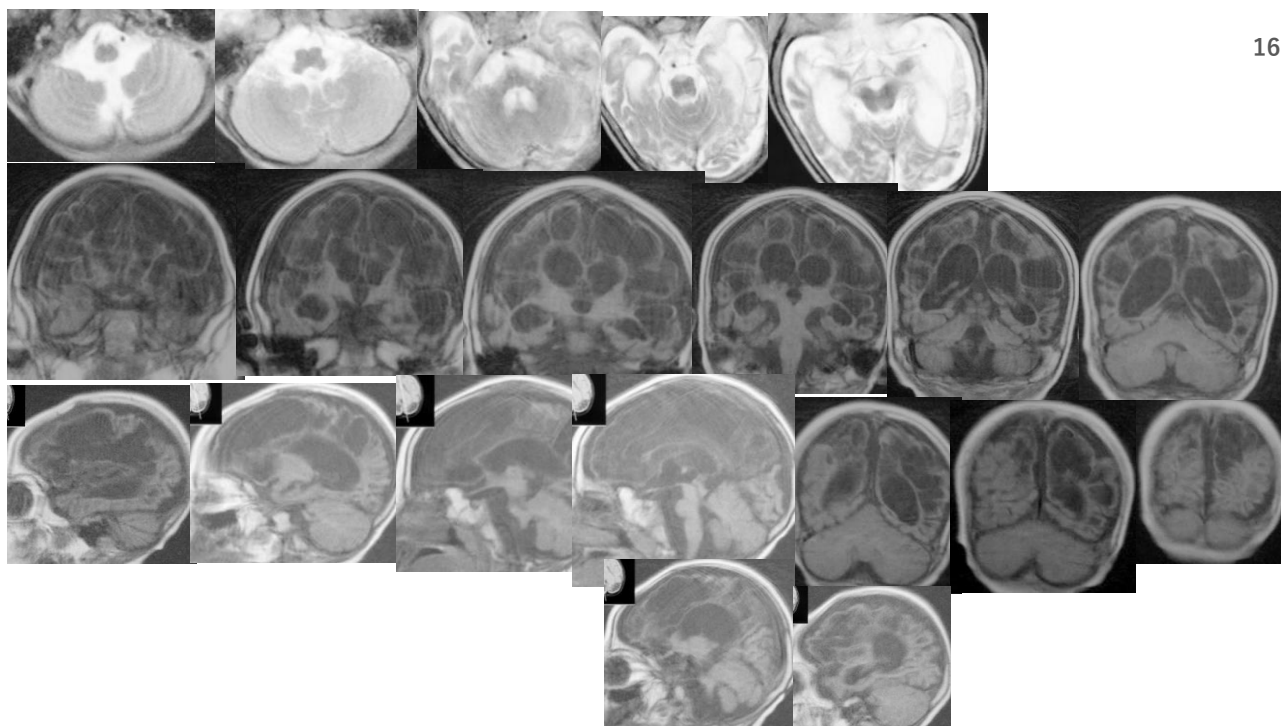
52

PCA本幹だけ軽い



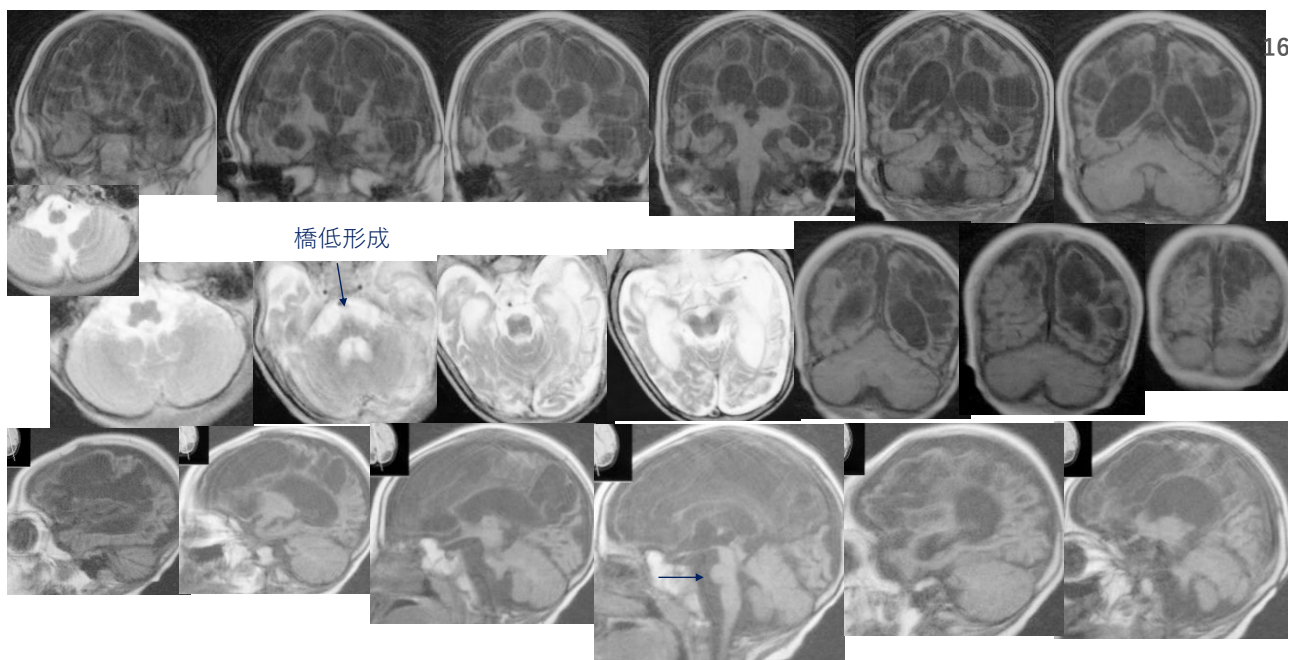
16

53



16

54



16

55



股外転・屈曲
膝屈曲



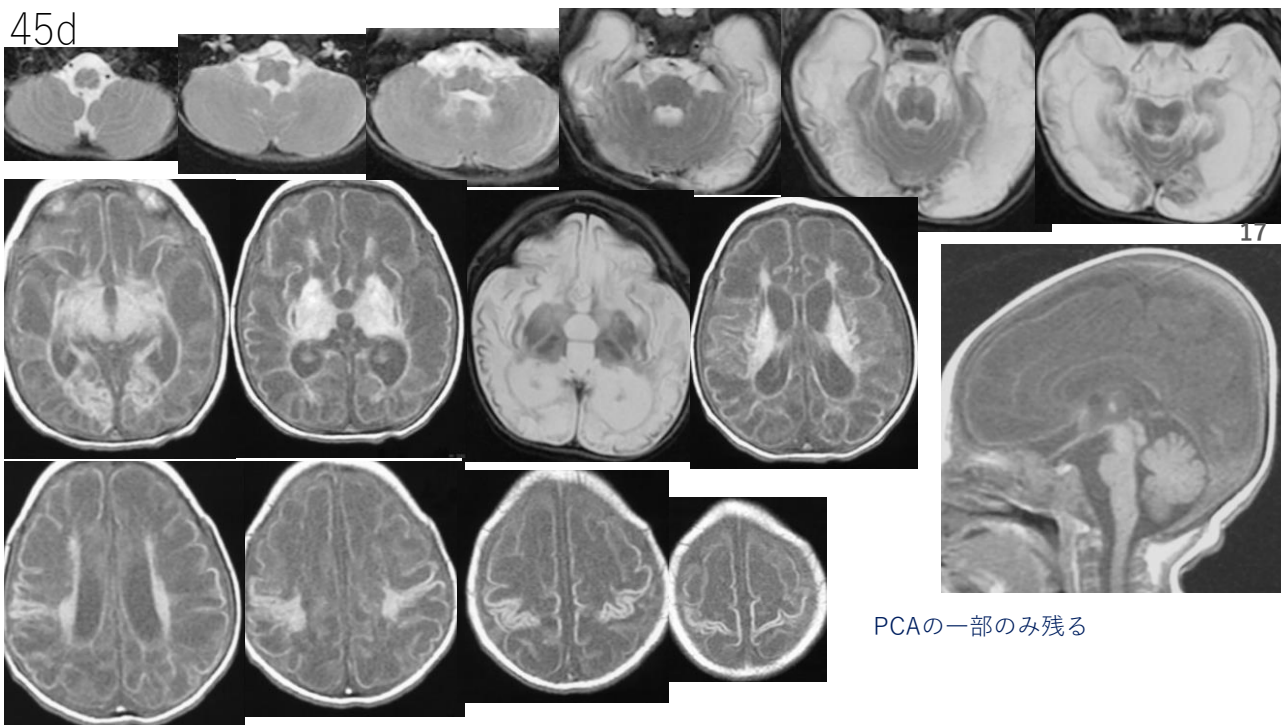
16
肩外転挙上
肘屈曲
手掌屈



[余談] 股屈曲過活動スペクトラムの肩
 • 肩挙上
 僧帽筋上部・肩甲挙筋・菱形筋
 • 肩外転
 三角筋中部線維・棘上筋・前鋸筋
 * 肩甲骨内側浮き出を造りうるのは前鋸筋

56

45d

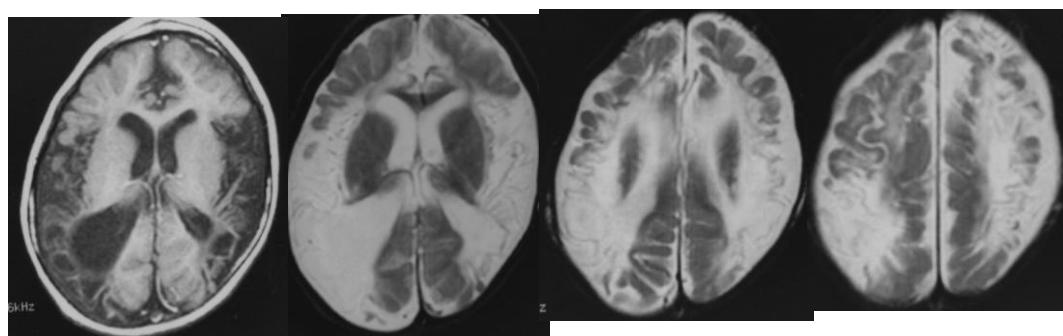
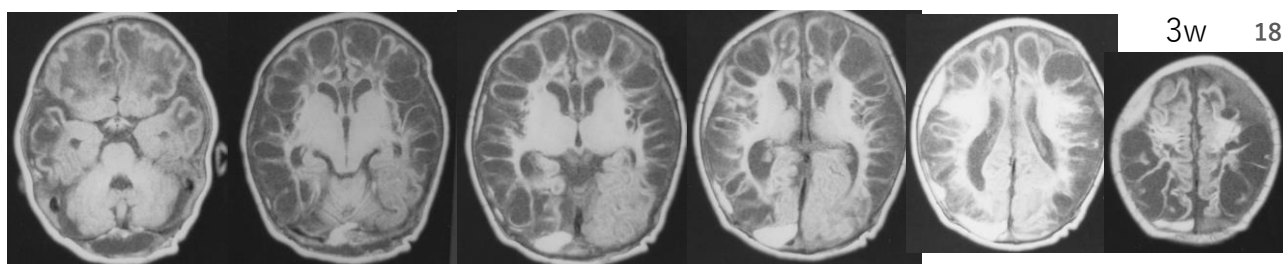


PCAの一部のみ残る

57



58



- PCA域のみ残る
- 前頭部の新生児期嚢胞性病変は、幼児期は萎縮病変になる

59



60

満期産低酸素性虚血性脳症の脳病変は

- 視床基底核 + 大脳白質 + 大脳易損傷部*

* 中心溝部・大脳内側部・弁蓋部・海馬部・後頭葉（・視床枕）

←低酸素性機序

- 大脳動脈境界域・終末枝領域

←脳低血流障害

この2者に区分され、その混合はない