**Supplementary table**. *Clinical characteristics and MRI findings of children and adolescents with AgCC included in the study*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***ID*** | ***Age*** | ***Sex*** | ***H*** | ***Education*** | ***Help*** | ***FSIQ*** | ***P/C*** | ***CC status*** | ***AC*** | ***PC*** | ***PB*** | ***CO*** | ***Additional MRI findings*** | ***Seizures*** | ***Genetic*** |
| 001 | 15.67 | F | L | Mainstream | + | 81 | C | CC absent  | ++ | ++ | + | + | Bilateral periventricular nodular heterotopia  | + | +FLNA gene |
| 002 | 14.33 | F | R | Special |  | 40 | P | Presence of a thin middle posterior body and posterior body | tiny | tiny | + | - | (a) irregular crowded sulci posteriorly in the occipital region and medial parasaggital region (b) shunt: enter R post-parietal region going into R lateral ventricle (c) bilateral periventricular nodules heterotopia = frontal predominant, lining frontal horns and mid bodies of lateral ventricles | - | - |
| 003 | 11.75 | M | L | Mainstream | + | 96 | P | Presence of part of the genu | + | + | + | + | None | - | - |
| 007 | 14.75 | F | L | Special |  | 69 | P | Presence of thin rostrum, genu, and anterior body | + | + | - | - | Agenesis of the septum pellucidum, semilobar holoprosencephaly | + | - |
| 008 | 8.33 | M | L | Mainstream &Special | + | 73 | C | CC absent | + | + | + | + | Cortical dysplasia  | - | - |
| 010 | 9.67 | M | L | Mainstream | + | 62 | P | Presence of the rostrum | tiny | + | - | + | None | - | - |
| 011 | 11.67 | M | L | Mainstream | + | 75 | C | CC absent | + | + | + | + | None | - | - |
| 012 | 15.33 | F | R | Mainstream | - | 100 | P | Presence of the rostrum | ++ | + | + | + | Bilateral periventricular heterotopic grey matter | + | - |
| 013 | 9.50 | M | L | Mainstream | - | 81 | P | Presence of the rostrum and of the genu | + | + | - | - | Cerebellar hemispheric hypoplasia, Dandy Walker variant, Heterotopic grey matter, small interhemispheric cyst | - | - |
| 015 | 10.25 | F | L | Mainstream | - | 73 | P | Presence of the middle-posterior body, posterior body, and the splenium | + | + | - | - | Abormal grey matter around the frontal horns of the lateral ventricles, abnormal sulci medio in frontal lobe | + | - |
| 016 | 13.42 | F | R | Mainstream | - | 93 | P | Presence of the anterior body | tiny | ++ | + | - | None | - | - |
| 017 | 8.83 | F | R | Special | - | 71 | C | CC absent | tiny | + | + | + | Bilateral periventicular heterotopic grey matter | - | - |
| 018 | 12 | M | R | MainstreamSpecial (high school) | + | 72 | C | CC absent | + | + | + | + | None | - | + dup 3p26.3 |
| 019 | 8.58 | M | R | Mainstream | + | 73 | C | CC absent | + | tiny | + | + | None | - | + dup 3p26.3 |
| 020 | 12.67 | M | L | Mainstream | + | 76 | C | CC absent | tiny | tiny | + | - | Abnormal deep sulcation (right parietal) lined by polymicrogyria | - | - |
| 021 | 10.67 | M | R | Special | - | 84 | C | CC absent | ++ | ++ | + | + | Unilateral periventricular heterotopic grey matter (right frontal horn) | - | - |
| 024 | 10.83 | M | R | Mainstream | + | 82 | C | CC absent | ++ | + | + | + | None | - | - |
| 025 | 12.58 | M | R | MainstreamSpecial (high school) | + | 74 | P | Presence of the middle-posterior body, posterior body, and the splenium | + | + | - | + | Right schizencephaly, polymicrogyria | - | - |
| 026 | 14.83 | F | R | Mainstream | - | 70 | P | Presence of the rostrum, genu, anterior body, and a thin middle anterior body | + | tiny | - | - | Bilateral polymicrogyria | - | - |
| 107 | 11.58 | M | L | Mainstream | + | 66 | C | CC absent | ++ | ++ | + | + | Left interhemispheric cyst, hypoplasia of the left cerebral hemisphere. | - | - |
| 108 | 10.17 | M | L | Montesori School | + | 83 | C | CC absent | + | + | + | - | Left interhemispheric cyst, grey matter heterotopia, left anterior hemispheric cortical dysplasia  | - | - |
| 109 | 9.67 | F | R | Mainstream | - | 126 | P | Presence of a thin rostrum, genu and anterior body | + | + | + | + | None(history of haemorrhagic cerebral AVM(due to genetic condition)) | - | +Hereditary haemorrhagic telangectasia |
| 110 | 9 | M | L | Mainstream | - | 95 | C | CC absent | + | + | + | + | Interhemispheric cyst with saptation in the left hemisphere, causing pressure in the right. Cortex around the cyst is malformed | - | - |
| 112 | 17.08 | M | R | Mainstream | + | 82 | P | Presence of the rostrum | - | + | + | + | Frontonasl dysplasia, sphenoidal encephalocele, non visualization of the pituitary gland | - | - |
| 113 | 10 | F | R | Mainstream | + | 73 | C | CC absent | + | + | + | + | None | - | - |
| 022 | 8.67 | F | M | Mainstream &Special | + | 71 | C | CC absent | + | ++ | + | - | Unusual deep sulci (right central sulcus, parasagittal region posteriorly) | - | +Oro facial digital syndrome Type 1 |
| 009 | 12.25 | F | M | Special |  | PIQ=59 | P | Presence of the genu, anterior and middle anterior body | + | + | + | - | None | - | - |
| 114 | 10.92 | M | R | Mainstream | + | 73 | P | Presence of rostrum, genu, anterior and middle anterior body | - | + | + | - | None | - | + del 16p13.11 |

*Abbreviations: Age (in years); Sex: F female, M male; H Handedness: L left, R right, A ambidextrous; Help: Intervention and remedial support at school; P/C: P partial AgCC, C complete AgCC; CC details: corpus callosum structural properties details; AC: anterior commissure, - absent, + present and normal size, ++ enlargement; PC: Posterior commissure, - absent, + present and normal size, ++ enlargement; PB: probst bundles + present, - absent; CO: colpocephaly + present, - absent; MRI finding: other MRI findings; Seizure + present, - absent; Genetic: Genetic condition or syndrome + present, - absent*