Introduction

Sylvian Fissure (SF) is known as a reliable marker for normal brain development. It was demonstrated that abnormal cortical development mainly gyration can be announced during fetal life by delayed operculization of FS. Extracortical anomalies of the CNS (central nervous system) were clearly inducing abnormal FS aspects but it is not clear if minor signs can also associate FS abnormalities.

Case presentation:

We present the case of a 32 years primipara who was referred to our clinic at 24 weeks of gestation for persistent mild ventriculomegaly. The VM (ventriculomegaly) was identified at 21 weeks at the midtrimester abnormally scan and remained at the same dimension (11,5 mm RLV-right lateral ventricle and 10,8 mm LLV-left lateral ventricle). Detailed scan of the brain revealed no other association but an “abnormal appearance” of the SF.

The combined risk for aneuploidy was low (1/2500). Serological tests were negative for TORCH and detailed family history was normal. The VM was considered isolated and the patient was rescheduled for examination at 26 wks. She presented at 27+6 with a slightly increased VM 11,95 mm and 11,2 and discreet dilatation of the V3. The SF still had a delayed operculization, corresponding to an earlier gestational age (less than ½ half overridden of the temporal lobe). We performed karyotyping after couple statement that if the baby could have an neurological or mental handicap they choose TOP (termination of pregnancy). Karyotype was surprising – Trisomy 21(T21) and TOP was performed at 29 weeks.

Conclusion

Mild ventriculomegaly is rarely associated with T21 and wouldn’t it had been for the abnormal SF appearance the diagnosis could been missed. The case demonstrates that in T21 there can be also impairment of the neuronal migration and cortical gyration that need more extensive studies in order to prove if delayed FS development can be an individual marker or the association is incidental.