Stuttering

New research has found that dysfunction in the area may lead to other speech disorders such as stuttering and apraxia of speech. Recent anatomical neuroimaging studies have shown that the pars opercularis of Broca's area is anatomically smaller in individuals who stutter whereas the pars triangularis appears to be normal.

Stuttering occurs in approximately 5% of all children and 1% of adults. One type, neurogenic stuttering, is usually attributable to strokes or other structural damages to the brain areas that are responsible for language fluency.

Sudo et al., present the first case of neurogenic stuttering caused by a brain abscess. The patient was a 60-year-old man admitted for a seizure and administered an anticonvulsant, after which he began stuttering. MRI revealed a brain abscess in the left frontal lobe that extended to the dorsolateral prefrontal cortex (BA (Brodmann's area) 9 and 46), frontal eye field (BA 8) and premotor cortex and supplementary motor area (BA 6). After neurosurgical drainage and antibiotic treatment, the symptoms had resolved. This case is unique in that the therapeutic effects and localisation of the cause of stuttering were rapidly identified, allowing for a more accurate description of the neural circuitry related to stuttering [1].

1)
Sudo D, Doutake Y, Yokota H, Watanabe E. Recovery of brain abscess-induced stuttering after neurosurgical intervention. BMJ Case Rep. 2018 May 12;2018. pii: bcr-2017-223259. doi: 10.1136/bcr-2017-223259. PubMed PMID: 29754132.