

Fregoli Syndrome in primary and secondary psychosis: A case-level meta-analysis

Maria Teixeira-Dias, Amber Kaur Dadwal, Graham Blackman

maria.teixeira-dias@kcl.ac.uk, amber.dadwal@kcl.ac.uk, graham.blackman@kcl.ac.uk

Introduction

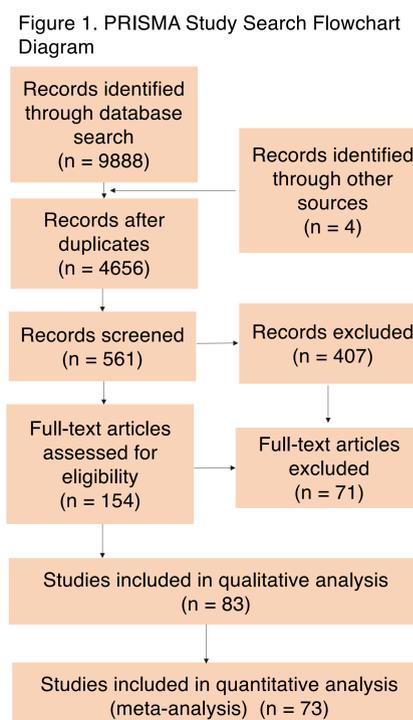
- Fregoli syndrome is a rare delusion characterised by the misidentification of an individual, typically as someone who the patient has an emotional link towards.
- The pathoetiology underlying Fregoli syndrome remains largely unknown, however, it has been described in patients experiencing either a primary or secondary (“organic”) aetiology.
- The lack of understanding of Fregoli syndrome has posed challenges to mental health professionals and a lack of efficacy in assessment, diagnoses and treatment of such syndrome (Atta et al., 2016).

Study Aim

- To compile all case descriptions of Fregoli syndrome in the English literature.
- To compare the neuropsychiatric features of this delusion in patients with primary and secondary psychosis using an individual-patient meta-analytic approach.

Methodology

- Five electronic databases were searched to find all case reports and descriptions of patients suffering with Fregoli syndrome (Fig. 1).
- Methodological quality of case studies was assessed (Murad et al., 2018).
- Random-effects models were used to pool the data and odds ratios (OR) and 95% confidence intervals (CI) were estimated.
- Secondary analyses addressed the delusion’s content and the lesion location of neuroimaging abnormalities.



Results

- A total of 119 cases of Fregoli syndrome were identified (Fig. 2).

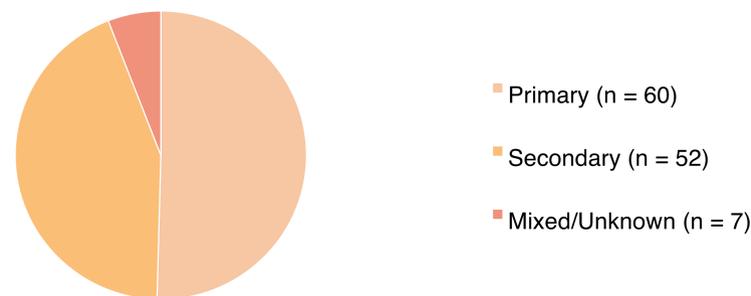


Figure 2. Psychosis aetiology of Fregoli syndrome patients described in the literature.

Main Analyses

- Neuroimaging abnormalities were also significantly more likely to be seen in secondary Fregoli syndrome patients (Fig. 3).
- First-episode psychosis was significantly more likely in patients with Fregoli syndrome of secondary aetiology (Fig. 3).
- Persecutory features were significantly more likely to occur in patients with a primary psychiatric diagnosis (Fig. 3).

Neuroimaging Analyses

- There were more right-hemisphere lesions in patients with secondary Fregoli syndrome than in patients with primary Fregoli syndrome, however this trend was not significant ($p = 0.10$; Fig. 4).
- Frontal ($n = 10$), temporoparietal ($n = 5$) and frontotemporal ($n = 4$) lesions were the most frequent in patients with secondary Fregoli syndrome.

Primary Outcomes

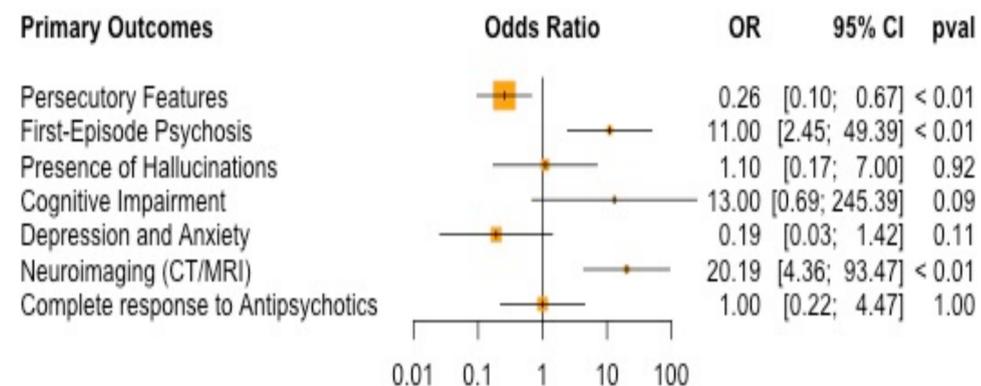


Figure 3. Forest plot of main analyses

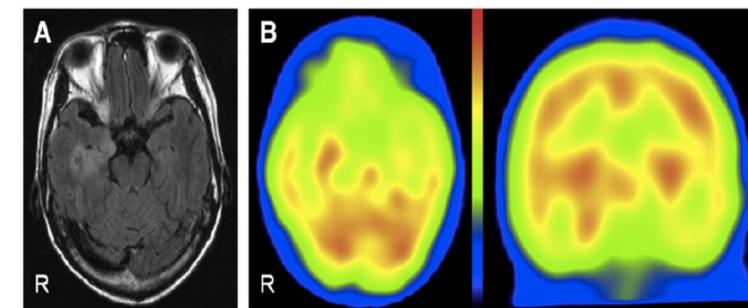


Figure 5. MRI and SPECT images showing right temporal and medial abnormalities in a patient who developed Fregoli syndrome after a cerebral haemorrhage (Sakurai et al., 2012).

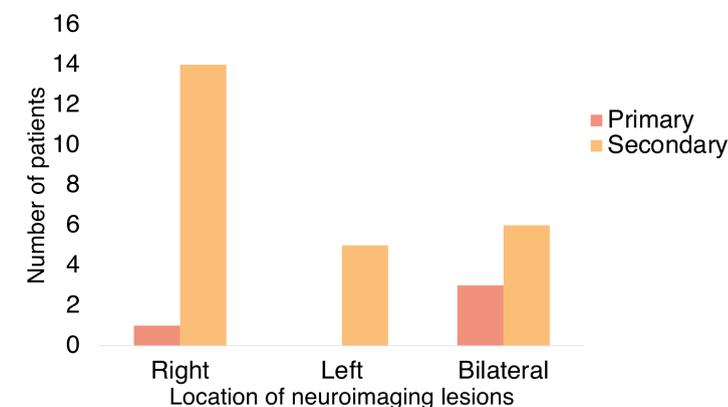


Figure 4. Lesion location in Fregoli syndrome patients

Conclusions

- Of 119 cases of Fregoli syndrome described in the English literature, 52 (44%) had a secondary “organic” cause.
- Meta-analytic evidence suggests that secondary causes of Fregoli syndrome are associated with a first-episode of psychosis.
- Furthermore, secondary causes are associated neuroimaging abnormalities, in particular right hemispheric lesions.

References

- Atta, K., Forlenza, N., Gujski, M., Hashmi, S., & Isaac, G. (2006). Delusional Misidentification Syndromes: Separate Disorders or Unusual Presentations of Existing DSM-IV Categories? *Psychiatry*, 3(9), 56–61.
- Murad, M. H., Sultan, S., Haffar, S., & Bazerbachi, F. (2018). Methodological quality and synthesis of case series and case reports. *Evidence-Based Medicine*, 23(2), 60–63.
- Sakurai, K., Kurita, T., Shiga, T., & Takeda, Y. (2012). A patient who misidentified all surrounding persons as her family. *Epilepsy & Behavior*, 25(2), 162-165.