#3117 Title: Fregoli syndrome in primary and secondary psychosis: A case level meta-analysis

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Objectives/Aims:
Fregoli syndrome is a rare delusion characterised by the misidentification of an individual, typically of someone who the patient has an emotional link towards. The pathoaetiology of Fregoli syndrome remains largely a mystery, however,it has been described in patients experiencing either a primary or secondary ("organic") psychosis. We sought tocompare the neuropsychiatric features of Fregoli syndrome in primary and secondary psychosis.

Methods:
A patient-level meta-analysis was conducted. Five databases were searched for any descriptions of Fregoli syndrome. The patients' and the psychotic episodes' details alongside the co-occurring neuropsychiatric features and treatment responses were extracted. A risk of bias assessment was carried by scoring the methodological quality of all case studies. Random-effects models were used to pool the data and odds ratios and 95% confidence intervals were estimated for each of the neuropsychiatric features extracted between primary and secondary psychoses groups.

Results:
A total of 119 patients (62 with primary psychosis, 50 with secondary psychosis and 7 with mixed or unknown aetiology) with Fregoli syndrome were identified in the English literature. Persecutory features were more likely to occur in patients with primary Fregoli syndrome (OR = 0.26, 95% CI[0.10;0.67], $p < 0.01$). In addition,Fregoli syndrome in the context of a first-episode psychosis (OR = 11.00, 95% CI [2.45;49.39], $p < 0.01$) and in the presence of neuroimaging abnormalities (OR = 20.19, 95% CI [4.36; 93.47], $p < 0.01$) was significantly associated with secondary aetiology.Patients in the secondary psychosis group (n=14) showed more right hemisphere lesions than patients in the primary psychosis group (n=1), however this trend was not significant ($p = 0.10$). Furthermore, no statistical differences between psychoses groups were found for the demographic, clinical and neurophysiological features analysed.

Conclusions:
This is the first meta-analysis investigating the features of Fregoli syndrome in primary and secondary psychosis.Findings suggest that secondary causes of Fregoli syndrome are associated with a first-episode of psychosis and that neuroimaging abnormalities, particularly in the right hemisphere, are associated with a secondary 'organic' cause.