

Panic attacks associated with fear of bright daylight

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Berlin, 20 October 2014 Fear of bright daylight is associated with panic disorder, according to new presented at the ECNP congress in Berlin.

Panic disorder is where a person has recurring and regular panic attacks. In the UK, it affects about two in 100 people, and it's about twice as common in women as it is in men¹.

Previous studies have shown that there is a strong seasonal component in panic disorder, but this is the first study to look specifically at panic disorder patients' reactions to light.

A group of researchers from the University of Siena (Italy) compared 24 patients with panic disorder (PD) against 33 healthy controls. Using a standard Photosensitivity Assessment Questionnaire (PAQ), they found that healthy controls showed a slight (not statistically significant) tendency to be photophilic – to be attracted to bright light. In contrast, the patients with panic disorder showed medium to high levels of aversion to bright light.

The Photosensitivity Assessment Questionnaire asks subjects to agree or disagree with a series of questions about their attitude towards light, for example "My ideal house has large windows" or "Sunlight is so annoying to me, that I have to wear sunglasses when I go out". The mean values in the Photosensitivity Assessment Questionnaire were as follows: patients with photophobia scored 0.34 (\pm 0.32 SD), healthy subjects scored 0.11 (\pm 0.13 SD).

According to lead researcher, Dr Giulia Campinoti:

"There have been several hints that photophobia is associated with panic disorder; for example in some people, fluorescent light can induce panic attacks. It had also been noted that people with panic disorder often protect themselves from light, for example by wearing sunglasses.

We believe that photophobia is one of the elements which may increase the risk of people suffering from panic attacks, but this is a small study, so it needs to be confirmed by a longer-term follow-up trial. For example, we need to understand if the photosensitivity and panic attacks continue to be related over time. If we can confirm this, then we may be able to take steps to avoid some of the triggers to panic attacks. It is important to note that our work shows an association, not necessarily a cause and effect. We don't yet know exactly what the relationship might be, but there is probably some underlying biochemical basis".

Commenting for the ECNP, Professor Siegfried Kasper (Vienna) said:

"This is a very interesting study that confirms our previous finding that anxiety components within depression cannot be treated with light therapy".

ENDS

Notes for Editors

Please mention the European College of Neuropsychopharmacology Congress
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ECNP organises a wide range of scientific and educational activities, programmes and events across Europe, promoting the exchange of high-quality experimental and clinical research and fostering young scientists and clinicians.

The annual ECNP Congress takes place from 18-21 October. It is Europe's premier scientific meeting for disease-oriented brain research, annually attracting between 5,000 and 8,000 neuroscientists, psychiatrists, neurologists and psychologists from around the world. Website: www.ecnp.eu

1 <http://www.nhs.uk/conditions/panic-disorder/Pages/Introduction.aspx>

Abstract

P.4.b.013 **Photosensitivity and panic agoraphobic spectrum** G. Campinotti¹ °, L. Bossini¹, A. Fagiolini¹ *1Policlinico Le Scotte, Department of Mental Health Psychiatry Section University of Siena, Siena, Italy* **Purpose of the study:** Clinical observations have highlighted the presence of a strong seasonal component in panic disorder (PD), accompanied by high photosensitivity, and this seems to contribute to the etiopathogenesis of the disorder and also to affect the course and response to therapy [1]. The present study aims to compare sensitivity to light defined as photophobia (Pho) and photophilia (Phi) between a group of subjects with either subthreshold or fully syndromal PD and healthy controls and to assess the correlation between photosensitivity and the panic agoraphobic spectrum. **Methods:** We administered the Mini International Neuropsychiatric Interview (MINI v.5), the self-report version of the Panic-Agoraphobic Spectrum Assessment (PAS-SR) and the Photosensitivity Assessment Questionnaire (PAQ) to 24 subjects with panic disorder and to 33 healthy subjects. PAQ is a self-report questionnaire that evaluates two dimensions of photosensitivity: photophilia and photophobia [2]. Inclusion criteria for patients were: age 18–60 years old, diagnosis of Panic Disorder with or without agoraphobia according to DSM-IV-TR without any current or life time psychiatric comorbidity, absence of any ophthalmologic or general medical condition that could affect the retinal function; absence of any current medication except for benzodiazepines as needed. The control sample was recruited with the following criteria: absence of current or past history of psychiatric illness according to the MINI v.5 and/or any other present relevant medical condition on the basis of a clinical examination; absence of any current pharmacological

treatment. Data were analysed by the Statistical Package for Social Science software (SPSS). The data were considered statistically significant for P values <0.05. **Results:** As shown in the table, healthy controls had a tendency to be photophilic, while scoring very low on the photophobia scale; conversely, the patient group showed medium to high scores of photophobia. Patients revealed higher levels of Pho (P<0.001) and lower levels of Phi (P = 0.017) than healthy controls. Not surprisingly, total scores on the PAS-SR were significantly higher among subjects with PD compared to healthy controls [3]. In the whole sample (n = 57), the PASSR total scores (Pas-tot) was significantly correlated with PAQ Photophobia scores (r = 0.58; P<0.001), while the correlation with the PAQ Photophilia scores did not reach conventional levels of statistical significance (r = -0.10; P<0.43). This pattern of correlation was replicated when considering the PD sample separately: Photophobia and Pas-tot (n = 24; r = 0.55; P<0.006); Photophilia and Pas-tot (r = -0.17; P = 0.43). Interestingly, Pho also correlated significantly with the PAS-tot score in the healthy controls group taken separately (n = 33; r = 0.46; P<0.007), but again no significant correlation was present for Phi and Pas-tot (r = -0.07; P = 0.67). **Conclusions:** This study found a strong relationship between panic disorder and Photophobia, shown by the higher prevalence of Photophobia in panic disorder patients compared to healthy controls and by the positive correlation of Photophobia with a panic agoraphobic spectrum measure.

Table: Mean values in the PAQ and the PAS-SR questionnaires Patients (mean/SD) Healthy subjects (mean/SD) p value
Photophilia 0.50/0.24 0.63/0.25 0.017 Photophobia 0.34/0.32 0.11/0.13 <0.001 PAS-SR 48.00/18.92 16.12/12.69 <0.001

References [1] Bossini, L., Fagiolini, A., Valdagno, M., Padula, L., Hofkens, T., Castrogiovanni, P., 2009. Photosensitivity in Panic Disorder. *Depress Anxiety* 26, 34–36. [2] Bossini, L., Valdagno, M., Padula, L., De Capua, A., Pacchierotti, C., Castrogiovanni, P., 2006. Sensibilità alla luce e psicopatologia: validazione del Questionario per la Valutazione della Fotosensibilità (Q.V.F.). *Medicina Psicosomatica* 51, 167–176. [3] Cassano, G.B., Michelini, S., Shear, M.K., Coli, E., Maser, J.D., Frank, E., 1997. The Panic-Agoraphobic Spectrum: a descriptive approach to the assessment and treatment of subtle symptoms. *Am J Psychiatry* 54, 27–38.