has been estimated that the product has sales potential of about €1.1 billion [1].

We saw a patient who developed severe psychotic symptoms after volunteering to participate as a healthy control in a clinical study. The 21-years-old student had no history of psychiatric or other disorders. Within 10 d after injection of 180 µg peginterferon alpha-2a, the woman first showed unspecific symptoms (restlessness, sleep disturbances, emotional instability) and then manifest psychotic symptoms including delusions, paranoia, anxiety, and hallucinations. Initially, treatment was difficult, possibly due to the continued interferon secretion; the psychotic symptomatology improved only after combined administration of benperidol, risperidone, chlorprothixene, and lorazepam. Within 2 months of therapy, positive symptoms were significantly reduced, but the patient exhibited increasingly negative symptoms such as depressed mood, cognitive deficits, and loss of stamina. The family history revealed several cases of psychiatric disorders: the mother suffered from bipolar disorder and committed suicide; a grandmother was affected by a schizoaffective psychosis and a brother suffers from paranoid-hallucinatoric schizophrenia.

Mental disorders are significantly associated with interferon treatment. In as much as 30% of patients receiving non-pegylated forms of interferon alpha, various neuropsychiatric side effects and complications are observed, including anxiety states, suicidal tendencies, and psychotic symptoms [2]. However, this to our knowledge is the first report of an acute schizophrenia-like psychosis possibly related to the injection of the new drug peginterferon alpha-2a. We assume that the psychotic disorder was triggered by the interferon application. The vulnerability for psychiatric disorders probably was increased due to hereditary factors. Due to peginterferon's long biological halflife, the management of adverse effects can be more difficult than in standard interferon therapies. Side effects may occur after a single injection and discontinuation of administration may be not sufficient in order to cope with psychiatric complications. We conclude that a very careful indication is needed for the use of peginterferon alpha-2a, especially in cases with increased risk for neuropsychiatric disorders.

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Anorexia nervosa and anticonvulsant exposure during gestation

Dear Sir,

The causes of anorexia are unknown, but there is evidence to support the involvement of both psychological factors, such as media images [1], and physical factors, such as obstetric complications [2]. We describe a case, which demonstrates multiple factors involved in the aetiology of anorexia nervosa and suggests a novel link between anorexia nervosa and anticonvulsant exposure during gestation.

Ms. A, a 14-year-old female, presented with a historyof deliberate weight loss over 4 months (>15% of expected body weight), self-induced vomiting, irregular menstruation and fear of weight gain. She fulfilled ICD-10 criteria for anorexia nervosa. Assessment revealed that Ms. A's mother, who has epilepsy, took phenobarbitone and sodium valproate throughout pregnancy. Following a traumatic birth, Ms. A was in an incubator for 3 weeks. At this time, it was noted that Ms. A had no fingernails on two fingers of each hand. Her parents describe considerable difficulties establishing a feeding pattern in infancy and significant separation anxiety as a child. Owing to learning difficulties, Ms. A required special teaching at school. With the onset of puberty, she was bullied about her appearance both at school and at home, and became increasingly preoccupied with her weight. Ms. A got the idea to restrict weight through self-induced vomiting from a television programme in which a character displayed this behaviour. At the time of assessment, Ms. A had developed lanugo hair and had experienced dizzy spells, cold extremities, tiredness, poor concentration and irritability.

Anticonvulsant exposure during gestation may have both direct and indirect consequences, which may be related to the development of anorexia nervosa in the child. In the first instance, foetal exposure to anticonvulsant medication is directly associated with ectodermal hypoplasia, central nervous system anomalies and cognitive deficits [3]. These effects are particularly significant in light of the emerging association between certain obstetric complications and anorexia nervosa [2]. In our case, the patient was exposed to phenobarbitone and sodium valproate during gestation; had a particularly traumatic birth; and also demonstrated substantial ectodermal anomalies known to be associated with anticonvulsant medication during gestation. Anticonvulsant exposure, and subsequent incubation, also had multiple indirect

effects in this case, including impaired attachment, early feeding difficulty and bullying as a result of both learning difficulties and physical appearance.

This case demonstrates how a constellation of psychological and physical factors may combine to predispose to the development of anorexia nervosa. Additional environmental or psychological factors, such as television images [1], may also be required to precipitate the illness at any particular time. This case also suggests possible links between anticonvulsant exposure during gestation and future development of psychological illness.

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