

# Aripiprazole in human milk

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Second-generation antipsychotics are now the established first-line treatment for schizophrenia. However, there are limited data on the use of these compounds in pregnant and breastfeeding women with mental disorders. For ethical reasons, research on these subjects mostly relies on collection of single datasets of cases in order to establish treatment guidelines.

Milk-to-plasma ratios of drug concentrations (M:P ratio) have been reported for clozapine (2.79/4.32), olanzapine (0.10/0.84), and risperidone/9-OH risperidone (0.10/0.42, 0.24/0.50) (Gardiner et al., 2003; Gentile, 2004; Winans, 2001). One case report calculated that the infant ingests 0.09–0.43% of the weight-adjusted maternal dose of quetiapine (Lee et al., 2004). To our knowledge, this is the first report of aripiprazole in human breast milk.

Mrs A is a 30-yr-old woman (gravida II, para II) from Jordan, who has been living in Germany for the past 3 yr. At admission, she suffered from formal thought disorder and delusions of persecution. She had been untreated for more than 7 yr. After 6 months of breastfeeding her second child, Mrs A ablated and was admitted to a psychiatric hospital for the first time. To avoid an increase of prolactin we started treatment with 10 mg aripiprazole and increased her daily dose up to 15 mg on day 4. Maternal plasma and manually expressed milk samples were obtained on two consecutive days (treatment days 15 and 16) in the morning before aripiprazole administration. Aripiprazole concentrations were determined by a high-performance liquid chromatographic method (Kirschbaum et al., 2005). The first measurement yielded 71 ng aripiprazole/ml in plasma and 13 ng/ml in milk, the second 71 ng/ml in plasma and 14 ng/ml in milk. These results show that the concentration of aripiprazole in breast milk was ~20% of the maternal plasma level and the M:P ratio was 0.18/0.2.

Although more extensive studies are required, the M:P ratio of aripiprazole seems to be in a similar range as other second-generation antipsychotics which have been measured in breast milk to date.

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## Statement of Interest

None.

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- P. Schlotterbeck<sup>1</sup>, D. Leube<sup>1</sup>, T. Kircher<sup>1</sup>, C. Hiemke<sup>2</sup>, G. Gründer<sup>1</sup>
- <sup>1</sup> Department of Psychiatry and Psychotherapy, RWTH Aachen University, Germany
- <sup>2</sup> Department of Psychiatry, University of Mainz, Germany