

Pregnant women with psychiatric conditions require higher doses of neuroleptics

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The new generation of neuroleptics for psychiatric conditions has the advantage over older medications of fewer adverse side effects. An investigation into their effectiveness in pregnant women has now discovered that higher doses are needed during pregnancy to maintain the desired effect.

A study at the University Department of Paediatrics and Adolescent Medicine at the Medical University of Vienna investigated the pharmacological changes of a [new generation](#) of neuroleptics in pregnant women. Aripiprazole is a "second-generation neuroleptic agent". It is

used to treat people with [mental illness](#). It is prescribed for bipolar disorders, psychoses and schizophrenia and reduces hallucinations, for example. Compared to older medications, it has the advantage of fewer side effects, which is why it is also increasingly being used in women. The effect of aripiprazole in pregnant women has now been investigated for the first time.

Around one per cent of pregnant women with psychiatric disorders are treated with neuroleptics. In order to avoid risks to the unborn child during pregnancy, clinical practice often reduces the dose of the neuroleptic drug. This increases the risk, however, that the level of medication will fall below the therapeutic range. Left untreated, women with psychotic illnesses are exposed to stress that can harm both them and their [unborn child](#). In this case, relapses of the condition (untreated, this occurs in up to 70% of cases), the frequent associated abuse of drugs and alcohol and an increase risk of suicide all need to be avoided.

The study investigated the level of the substance in blood plasma and in the umbilical cord blood of three pregnant women. The results showed that these levels fell below the therapeutic range from the middle of the [pregnancy](#) onwards due to physiological changes. "This study shows for the first time that the dynamics of the plasma level corresponds to that of other substance classes such as anti-depressants, for example," explains study leader Claudia Klier from the Paediatric Psychosomatics Unit at the MedUni Vienna's University Department of Paediatrics and Adolescent Medicine. "Here too, the dose frequently has to be increased in order to cross back over into the effective range." The study has attracted interest at the Society for Perinatal Mental Health's international conference in Swansea because this relationship has never been investigated before for any neuroleptic agent, even though it is of major clinical significance. The transfer rate of the substance across the placenta has also been investigated for the first time. All three women gave birth to healthy children.

These highly detailed investigations have never been carried out before anywhere in the world on the first twelve published cases. Since clinical trials are not performed on pregnant women, only a few cases in which the investigations were carried out in the interests of clinical decision-making are providing urgently needed safety and efficacy data which is currently being collected from pregnant women on this new generation of neuroleptics in the context of register studies that are essential for the consideration of the risks and benefits of pharmacological treatment in [pregnant women](#).

More information: "Perinatal Use of Aripiprazole. Plasma Levels, Placental Transfer, and Child Outcome in 3 New Cases" – Elmar Windhager, Sung-Wan Kim, Alois Saria, Katharina Zauner, Paul G. Amminger and Claudia M. Klier. *Journal of Clinical Psychopharmacology*, [DOI: 10.1097/JCP.000000000000171](https://doi.org/10.1097/JCP.000000000000171)

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