NEWS

Clinical research: Arthritis drug improves autism treatment

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26 SEPTEMBER 2012

Double duty: Genes linked to autism overlap with those involved in arthritis.

The anti-inflammatory drug celecoxib, sometimes marketed as Celebrex, improves the effectiveness of risperidone for treating irritability in people with autism, according to a study published 11 July in *Psychopharmacology*[1].

Risperidone, an antipsychotic medication, is **one of only two drugs** approved **for treating autism**. Both risperidone and aripiprazole relieve the irritability and anxiety sometimes associated with the disorder. Although they are effective, the drugs have troubling side effects in some children, including weight gain, drowsiness and involuntary movements.

Several studies have shown a connection between an overactive immune system and autism risk. Women with rheumatoid arthritis have an **elevated risk of having a child with autism**. And gene variants that increase the risk of developing autism overlap with those involved in **ankylosing spondylitis**, a form of arthritis of the spine.

Celecoxib has also been shown to alleviate symptoms of schizophrenia[2] and severe depression[3].In the new study, researchers tested a combination of celecoxib and risperidone for treating symptoms of autism.

The researchers treated 40 children who have autism with risperidone for ten weeks. Half of them

also took celecoxib, and the other half took a placebo. The children had not taken any drugs for at least six months prior to the study, but had taken antipsychotics at some point in the past.

Based on scores on the Aberrant Behavior Checklist, a parent questionnaire, children who took both drugs showed less irritability — and 11 showed no irritability at all — after ten weeks than those who took risperidone alone. In contrast, 12 of the children who received placebo had less irritability than before and 4 showed no irritability at all.

Celecoxib also improves the effectiveness of risperidone in treating social withdrawal and **repetitive behaviors**, but not hyperactivity or inappropriate speech, the study found.

Half of the celecoxib group and nine of the children taking placebo reported side effects, but not severe enough to withdraw from the study.

References:

1: Asadabadi M. *et al. Psychopharmacology (Berl)* Epub ahead of print (2012) **PubMed**

2: Akhondzadeh S. *et al. Schizophr. Res.* **90**, 179-185 (2007) **PubMed**

3: Akhondzadeh S. *et. al. Depress. Anxiety* **26**, 607-611 (2009) **PubMed**