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The Effect of Paracetamol in Pregnancy

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Abstract:

If you're pregnant and feel you need to take painkillers, paracetamol is usually safe to take. However, before taking any medicine when you're pregnant, you should get advice from your midwife or GP. Paracetamol during pregnancy When you're pregnant, paracetamol is the preferred choice to treat mild or moderate pain high temperature (fever).

Paracetamol has been used routinely during all stages of pregnancy to reduce a high temperature and for pain relief. There is no clear evidence that it has any harmful effects on an unborn baby.

However, as with any medicine taken during pregnancy, use paracetamol at the lowest effective dose for the shortest possible time.

If the recommended dose of paracetamol doesn't control your symptoms or you're in pain, get more advice from your midwife or GP.

Introduction:

Paracetamol Paracetamol (also known as acetaminophen in some countries) is used to treat pain and fever and can be bought without a prescription. It has been used by pregnant women for many years without any obvious harmful effects on the developing baby. For this reason paracetamol is usually recommended as the first choice of painkiller for pregnant women. Other painkillers, including those sold over the counter without a prescription have not been shown to be any safer than paracetamol; some are not suitable for use during certain stages of pregnancy. Although it is not possible to say that any medicine is absolutely safe to use in pregnancy, there is currently no good evidence that paracetamol will harm your baby. It is however generally recommended that women who are pregnant use the lowest dose of paracetamol that works, only for as long as needed.¹

Discussion:

The first study: The new study looked at data on more than 64,000 children and mothers in Denmark between 1996 and 2002, while parents reported behavioural problems on a questionnaire. More than half the mothers reported using paracetamol while pregnant.

Its use was linked with a 37 per cent higher risk of hyperkinetic disorders - a severe form of attention deficit hyperactivity disorder (ADHD).

Children of women using the painkiller were 29 per cent more at risk of eventually taking drugs to control ADHD, and 13 per cent more likely to have ADHD-like behaviours at the age of seven.

There were higher risks for the children of women who used the drug for six months or more while pregnant and higher amounts.²

The second study: In California University, Los Angeles, they do Some recent studies that have suggested that acetaminophen has effects on sex and other hormones like testosterone hormone which is important factor for descended testicles and male development , which in turn can affect neurodevelopment and cause behavioural dysfunction.

Because the exposure and outcomes are frequent, these results are of public health relevance but further investigations are needed .

About half of women take over-the-counter painkillers while they are pregnant Previous research has suggested painkillers including paracetamol in pregnancy may harm development of the sex organs in unborn boys.

A study found prolonged use of painkillers - two weeks or more - may contribute to an increased risk in boys born with undescended testicles.¹

The third study: Taking paracetamol during pregnancy may impair the future fertility of female offspring, according to a review published in *Endocrine Connections*.

Paracetamol, or acetaminophen, is an over-the-counter treatment for pain relief that is commonly taken by pregnant women worldwide. Recent studies have linked paracetamol use during pregnancy with disruptions in the development of the male reproductive system but the effects on female offspring had not yet been investigated. In this article, Dr David Kristensen and colleagues from Copenhagen University Hospital, review the findings from three individual rodent studies that evaluated the effects of paracetamol taken during pregnancy on the development of the reproductive system in female offspring.

It is well known that exposure to some chemicals during pregnancy can cause developmental effects that may not manifest until much later in life. In rodents and humans, females are born with a finite number of eggs for reproduction in the future. In these reviewed studies, rodents given paracetamol during pregnancy, at doses equivalent to those that a pregnant woman may take for pain relief, produced female offspring with fewer eggs. This means that in adulthood, they have fewer eggs available for fertilisation, which may reduce their chances of successful reproduction, particularly as they get older.

Although there are parallels between rodent and human reproductive development, these findings have yet to be firmly established in humans. However, establishing a link between paracetamol taken by mothers during pregnancy and fertility problems much later in the adult life of the child will be difficult.³

Conclusions:

A baby's body and most internal organs are formed during the first 12 weeks of pregnancy. It is mainly during this time that some medicines are known to cause birth defects.

The majority of studies have shown that women who took paracetamol during the first three months of pregnancy are more likely to have a baby with a birth defect than women who did not. Some studies have suggested that prolonged use of paracetamol for - two weeks or more - in pregnancy may contribute to increase the risk of (born defect, behavioral problems, future infertility).

Reference:

1-Paracetamol,<http://www.medicinesinpregnancy.org/medicine--pregnancy/paracetamol/>

2-Taking paracetamol during pregnancy 'may raise the risk of a child developing ADHD' : <http://www.dailymail.co.uk/health/article-2566835/Taking-paracetamol-pregnancy-raise-risk-child-developing-ADHD>

3- Taking paracetamol during pregnancy may reduce fertility of daughters,<https://www.sciencedaily.com/releases/2018/01/180106103439.htm>