In utero exposure to diethylstilbestrol (DES): psychiatric disorders

Two French studies, including a case series, have investigated psychological or psychiatric disorders in hundreds of persons who were exposed to diethylstilbestrol in utero ("DES daughters" and "DES sons"). They show an increased frequency of psychiatric disorders such as schizophrenia, depression, and suicide attempts.

In utero exposure to diethylstilbestrol (DES) results in a variety of harmful effects, including long-term harms (1).

The data available in 2011 suggested an association between in utero exposure to DES and an increased risk of psychological disorders in adolescence or adulthood (2). The disorders described in these "DES daughters" and "DES sons" included depression, anorexia and bulimia (2).

In practice Although outcomes reported by DES daughters and mothers exposed to DES during pregnancy provide only weak evidence, these accounts are consistent with the epidemiological data. Taken together, the evidence makes a plausible case for a psychological component to the long-term harms of exposure to DES during pregnancy.

The long-term consequences of in utero exposure to DES are a very strong argument for evaluating the long-term effects of in utero exposure to synthetic hormones and more generally to other pharmaceutical and non-pharmaceutical substances.

Several hundred accounts. In 2016, HHorages (Halte aux HORMones Artificielles pour les Grossesses), a French patient support group with a particular interest in the psychiatric disorders associated with in utero exposure to synthetic hormones, published an analysis of the responses to questionnaires provided by 529 women who had taken DES during pregnancy. The questionnaires focused on the health of a total of 1182 sons or daughters (4).

In the group of 720 DES children, psychiatric disorders were reported in 603 children (250 DES sons and 353 DES daughters), including 32 suicides. In the group of 262 children whose mother had taken DES during a previous pregnancy but not during their intrauterine period, psychiatric disorders were reported for 16 children, including one suicide. Among 180 children born before the mother was exposed to DES and who acted as controls, none were reported to have psychological disorders.

Recruitment through a patient support group is likely to overestimate the frequency of disorders. Nevertheless, these data provide an insight into the types of psychiatric disorders observed in exposed children.

The psychiatric disorders diagnosed and then reported for the 250 DES sons were: schizophrenia (112 cases); depression, bipolar disorder, anxiety (85 cases); behavioural disorders, violence, aggressiveness and obsessive-compulsive disorder (47 cases); and eating disorders (6 cases). Half of the DES sons who had committed suicide were reported to have schizophrenia.

The psychiatric disorders reported for the 353 DES daughters were: depression and bipolar disorder (163 cases); eating disorders (75 cases); behavioural disorders and obsessive-compulsive disorder (62 cases); and schizophrenia (53 cases) (4).

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