

# Does a History of Maternal Migraine or Depression Predispose Children to Headache and Stomach-ache?

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## SYNOPSIS

The incidence of the life time history of both maternal migraine and depression were assessed in children with headache, migraine, recurrent abdominal pain and abdominal migraine. An epidemiological survey of 1,104 children registered with a general practice was undertaken. The incidence of maternal migraine and depression agreed with previous estimates. Children with migraine had a greater proportion of mothers with a history of migraine than those who experienced headache alone compared with controls. The survey showed that mothers with depression predisposed their children to headache but not specifically migraine. A history of maternal depression and migraine was significantly more common and proportionately higher in children with abdominal migraine and recurrent abdominal pain.

**Key words:** migraine, depression, mother, stomach-ache, headache, epidemiology

**Abbreviations:** RAP recurrent abdominal pain, RR relative risk (*Headache* 1992; 32:353-355)

## INTRODUCTION

Physical symptoms that have no obvious organic basis, are common in medical practice<sup>1</sup>, while the concept, that depression can lower the threshold for the perception of somatic pain, has been widely reported<sup>1-3</sup>.

The association between headache and depression is well documented in adult medicine<sup>4,5</sup>. Similarly depressive disorders in children can present with unexplained abdominal pain or headache<sup>6-8</sup>. An increased incidence of migraine in depression<sup>9</sup> and depression in migraine<sup>10,11</sup> has been reported from different clinics while more recently an epidemiological study confirmed and indicated that depression was twice as prevalent in adult migraineurs and their first degree relatives<sup>12,13</sup>.

Controlled studies from clinics have shown that migraineurs have on average a sixfold family history of migraine with a threefold increase in the proportion of subjects who report a positive family history among maternal as compared with paternal relatives<sup>14</sup>. Furthermore, reports have indicated that the biological predisposition to migraine is more likely to be maternally transmitted<sup>11,15</sup>. A strong inverse relationship has been found between the age of onset of migraine and a positive family history<sup>16</sup>. The earlier the age of onset of migraine in a child the more positive is the family history<sup>17</sup>, an observation which supports a stronger hereditary effect on the expression of sick headache in children.

Predisposing factors for recurrent abdominal pain (RAP) in children may be physical<sup>18</sup> and/or psychological<sup>19</sup>. Psychological factors thought to play a role include family and school stresses which act on a biologically determined predisposition to pain<sup>19,20</sup>. A significant observation in this context was that of Zuckerman et al.<sup>21</sup> who found that preschool children with RAP were more likely to have mothers who were emotionally depressed.

Although one report<sup>17</sup> has described a high maternal history of migraine (71%) in childhood migraineurs aged 7 to 15 years there have been no epidemiological surveys which have examined the incidence of maternal history of migraine in young children who have complained of headache or migraine. Similarly, no such surveys have been carried out in children with RAP or abdominal migraine. Apart from one report on preschool children<sup>21</sup> there is no known published epidemiological work on maternal history of depression in children with headache, and stomach-ache, in general practice.

The influence of a family history of migraine or depression on the probability of a child expressing the migraine syndrome is suggested by previous work<sup>12</sup>. However, this has not been formally studied in an epidemiological sample of children. We aimed therefore to determine the incidence of the life time history of both maternal migraine and

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