INCIDENCE OF MAJOR MALFORMATIONS IN INFANTS FOLLOWING ANTIDEPRESSANT EXPOSURE IN PREGNANCY: RESULTS OF A LARGE PROSPECTIVE COHORT STUDY

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OBJECTIVES: To determine whether antidepressants as a group, as well as each individual drug, increases the incidence of major malformations above the baseline of 1–3%. METHODS: At The Motherisk Program, we analyzed pregnancy outcomes of 1243 women from prospectively collected cases in our database, who were exposed to antidepressants during pregnancy. We then compared them to a matched comparison group of 1243 women who were not exposed (non-teratogen group) and the two groups were compared for the incidence of major malformations. RESULTS: A total of 928 women who fit the criteria for inclusion, who were exposed in the 1st trimester of pregnancy, were matched to 928 women in the comparison group. Antidepressants in the analysis included: bupropion (113), citalopram (184), escitalopram (21), fluvoxamine (32), fluoxetine (61), mirtazapine (68), nefazodone (49), paroxetine (148), sertraline (61), trazodone (17), venlafaxine (154). There were 24 (2.5%) major malformations in the antidepressant group and 25 (2.6%) in the comparison group: (RR 0.96, CI 95%: 0.55–1.67). CONCLUSIONS: First trimester exposure to antidepressants as a group was not associated with an increased incidence of major malformations above baseline. In addition, no individual antidepressant was associated with an increased risk of a specific malformation. The results of this study will add to the current literature in this field, as there has been conflicting data. Pregnant women requiring antidepressants in pregnancy and their health care providers, will find this information reassuring.

INDIVIDUAL’S HEALTH—Cost Studies

SYSTEMATIC REVIEW OF ECONOMIC EVALUATION STUDIES IN OBSTETRICS, GYNAECOLOGY AND REPRODUCTIVE MEDICINE

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OBJECTIVES: To examine the methodological quality of economic evaluation studies in obstetrics, gynaecology and reproductive medicine published from 1997 to 2008 and compare it with studies published between 1990 and 1997. METHODS: A checklist was constructed by using several existing checklists for methodological quality of economic evaluations and consisted of 30 quality criteria. Each of the articles was reviewed independently by two reviewers. Literature searches were performed in 23 obstetrics, gynaecology and/or reproductive medicine journals in Medline for the years 1997 through 2007. The following search strategy was used: “Cost-benefit analysis”[Mesh] OR “Cost-effectiveness”, and “Costs and Cost Analysis”[Mesh]. This search resulted in 615 articles concerning an economic analysis. Letters, comments, reviews and no full economic evaluations were excluded. The quality of studies was compared to a similar study that reported on the period 1990 through 1997. RESULTS: In our review 155 articles from 12 journals were included. The majority of the studies (57%) concerned obstetrics, whereas 37% dealt with gynaecology and 7% dealt with reproductive medicine. Most articles reported cost-effectiveness (55%), whereas 8% concerned cost-utility analyses. The mean number of criteria adhered to was 16.7 out of the 30 items. Highest score was met for the criteria ‘description of competing alternatives’ (95%). Only 16% of all the studies reported the perspective of the analysis, which is comparable to a previous review (19%). The primary outcomes are clearly stated in 92% of the studies, and that is better than in the earlier review (72%). More incremental (57% vs. 17%) and sensitivity analyses (66% vs. 21%) were reported as well. CONCLUSIONS: The methodological quality of economic evaluation studies published during the last decade in obstetrics, gynaecology and/or reproductive medicine journals considerably improved since an earlier review reported over the years before. However, improvement is still needed on several topics.

ECONOMIC ANALYSIS OF TREATMENT WITH IUI-COH VERSUS 6 MONTHS DELAY OF TREATMENT IN COUPLES WITH UNEXPLAINED SUBFERTILITY

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OBJECTIVES: To study the economic impact of a delay of treatment with 6 months in couples with unexplained subfertility. METHODS: The economic analysis was performed from the perspective of the health care institution. Subfertile couples with unexplained subfertility and a moderate prognosis for treatment-independent pregnancy were randomly assigned to intra uterine insemination with controlled ovarian hyperstimulation (IUI COH) (early treatment group) or 6 months expected management (expectant management group). After the initial study of 6 months, couples were managed according to local protocol. We registered the number of treatment cycles with IUI and IVF, as well as the ongoing pregnancy rates in both groups. RESULTS: In the early treatment group, 94 couples started with IUI-COH and underwent 505 treatment cycles (5.4 cycle per couple). In the expectant management group, 67 couples started with IUI-COH and underwent 311 treatment cycles (5.4 cycle per couple). For IVF, in the early treatment group, 40 couples started with IVF and underwent 79 treatment cycles (2.0 cycle per couple). In the expectant management group, 27 couples started with IVF and underwent 53 treatment cycles (2.0 cycle per couple). Early treatment with IUI significantly increased the risk of a couples starting with IVF (RR 1.6, 95% CI 1.0 to 2.3). The average costs per couple were €3821 after early treatment versus €2322 after expectant management (P-value < 0.001). When this saving in health care costs would be made available to the couples without an ongoing pregnancy after three years, these couples could undergo an additional three cycles of IVF per couple. CONCLUSIONS: Couples with unexplained subfertility and an intermediate prognosis for treatment independent pregnancy, delay of treatment for 6 months will result in reduction of health care costs of 1500 euros per couple without compromising the ongoing pregnancy rates.