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Study into Long-Term Use of Hormones

Less Harmful than Feared

Based on an article published in the *American Journal of Public Health* in April 2014, re-written and lightly edited by Katherine Cummings

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A topic which is frequently raised when discussions of ageing transgenders take place is the possible damage caused by long term use of hormone therapy, particularly as many hormones come with a warning against long-term use. A recent study on long term effects of cross-sex hormone treatment of transgender adults has however, reached the conclusion that there are very few long-term effects.

The study, called *Comorbidity and Side effects of Cross-Sex Hormone Treatment in Transsexual Subjects* was carried out using 2,000 patients from fifteen European and United States centres, and showed "mostly minor side effects and no new [adverse events]" took place in the large sample of subjects.

Dr Henk Asscheman, the principal investigator, pointed out some limitations of the study, including the facts that there were few patients with more than ten years follow-up and few who were aged over sixty. There were also some differences between diagnostic rates in the L.G.B.T.I. and European centres.

Co-chair, Dr Nelson, pointed to the size of the patient population and called it "one of the biggest databases so far" of transgender patients receiving hormone therapy.

She also said "Some side effects are expected, such as venous thromboembolism with estrogen use, but most of the results are really reassuring".

There were some unexpected findings, including comorbidities that existed before hormonal therapy. These included hyperthyroidism at 2.1% (M.T.F.) and 2.3% (F.T.M.), almost twice the predictable level for a test population that was largely under the age of forty, Type 2 diabetes at a rate of 3.2% (M.T.F.) and 0.6% (F.T.M.), morbid obesity at 2.5% (both M.T.F. and F.T.M.).

In the M.T.F. sample 2.6% were infected by H.I.V., 0.4% had prostate cancer and 0.3% had testicular carcinoma.

Dr. Nelson felt that the hyperthyroidism might be unrelated to gender dysphoria or hormonal treatment. After cross-sex hormone therapy, side effects in M.T.F. subjects included venous thromboembolism, weight gain in 0.5%, myocardial infarction in 0.4% and 0.1% experienced a stroke. Hypertension was also common in the M.T.F. group according to Dr Asscheman.

Side effects in F.T.M. subjects included acne in 2.9% of cases, weight gain 0.4%, muscle pain 0.4% and liver-enzyme abnormalities 0.4%.

Of the 1,596 adults who completed the follow-up, 1,073 were M.T.F. and 523 were F.T.M. The average age of the M.T.F. group was 35 years and the average age of F.T.M. was 27.5 years. The M.T.F. group had an average follow-up of 5.6 years and the F.T.M. group had an average follow-up of 4.5 years.

More than 70% of the M.T.F. group received cyproterone acetate or spironolactone as anti-androgens and more than 90% of the F.T.M. group had received intra-muscular injections or topical (gel) testosterone therapy.

One side effect noted more widely was that of depression, with an incidence of 24.9% in M.T.F. patients and 13.6% in F.T.M.. This effect varied widely between study centres. After treatment 2.4% of the M.T.F. group and 1.4% of the F.T.M. group continued to report that they suffered depression.

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