hormonal treatment of endometriosis may be the recently introduced luteinizing hormone-releasing hormone agonist buserelin. Both drugs are known to be effective in reducing endometriotic implants.

A Comparison of the Changes in the Plasma Lipids and Lipoproteins during Therapy with Danazol and Gestrinone for Endometriosis

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Danazol and gestrinone are effective drugs for treating endometriosis. Danazol has an adverse, but reversible effect on the plasma lipids and lipoproteins. The effect of gestrinone has not previously been studied.

Twenty endometriosis patients were randomly allocated to 6 months therapy with either danazol 200 mg/day or gestrinone 2.5 mg twice weekly. Fasting blood samples were taken before, during and after treatment for a full lipid analysis by ultracentrifugation.

There were no significant changes in total cholesterol, total triglycerides, very low-density lipoprotein (VLDL) cholesterol, VLDL triglycerides, or LDL cholesterol. Both drugs produced a significant fall in the levels of high-density lipoprotein (HDL) cholesterol, HDL₂ cholesterol and HDL₃ cholesterol. There were significant differences between the two treatments and the levels returned to normal on stopping treatment.

Although a temporary lowering of the level of HDL cholesterol is an adverse effect, it is probably acceptable in view of the clinical benefits of treatment.

Endocrine and Morphological Changes during GnRH Analogue Treatment (Suprefact) for Endometriosis

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A potent agonist of gonadotropin-releasing hormone (GnRH; Suprefact-Hoechst) was administered to 5 patients affected by endometriosis diagnosed by laparoscopy. Classification of endometriosis was made, according to the American Fertility Society, at the time of laparoscopy. Suprefact-Hoechst was administered subcutaneously (0.3

mg twice a day) for 6 months.

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During treatment, a GnRH test was performed to study hormonal responses. Ovarian and uterine dimensions were determined monthly with ultrasound scanning. Resolution of endometriosis was evaluated at the end of therapy by a second-look laparoscopy.

First Experiences in Treatment of Endometriosis with the GnRH Analogue Buserelin

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Buserelin is a long-acting gonadotropin-releasing hormone (GnRH) analogue. It can be administered intranasally by a nasal spray dispenser. Continuous treatment results in a down-regulation of the GnRH receptor sites of the pituitary. Therefore, the serum estrogen levels are diminished by inhibition of the ovaries. The aim of the presented study was to prove the possible use of buserelin in treatment of endometriosis.

Patients and Methods

The study includes 20 patients with endometriosis. The endometriosis was classified before treatment according to the endoscopic endometriosis classification (EEC) published by Semm. There were 8 patients with EEC level 1, 8 with EEC level II, 3 with EEC level III and 1 with EEC level IV. The treatment with 900 pg buserelin intranasally was started on the first day of the next bleedings and continued for 6 months. During treatment, monthly clinical examinations were performed. After treatment, a new classification of the endometriosis according to the EEC was performed.

Results

The percentage of patients with irregular bleedings dropped from 60% after one month of therapy to 10 % after 6 months. After one month, 20 % suffered from hot flushes, after 6 months however 55%. There was no significant weight gain or weight loss during the therapy.

The serum luteinizing hormone and follicle-stimulating hormone levels were all within the normal range and showed no significant change during therapy. The serum estradiol (E2) levels dropped from 195 pg/ml significantly to 46.6 pg/ml after a 6-month therapy. However, until the fourth month there were unsupposed E2 spikes to be seen. All serum progesterone levels were below 2.6 ng/ml during treatment. All testosterone levels were in the normal range and showed no changes during treatment.

After treatment, there was no more endometriosis to be seen in 16 out of 20 patients.

There were 2 patients with EEC level I, 1 with EEC level II and 1 with EEC level III. In summary, buserelin was very effective in the treatment of endometriosis. Because our study has just finished, the total pregnancy rate after therapy of endometriosis with buserelin is still unknown. However, 2 patients with sterility for several years got pregnant 2 and 3 months respectively after the end of treatment.