Treatment of mammary- and uterus hypoplasia by estrogen-progestagen pseudopregnancy

C. Lauritzen

Underdevelopment of the female breast may cause severe psychological problems. Treatment with the aim of improving breast volume and shape is therefore more than cosmetics in many cases. We have studied the possibilities of treating mammary hypoplasia with estrogen-progestagen preparations according to the scheme of the socalled pseudopregnancy. The optimal doses proved to be 40 mg estradiol valerate and 250 mg of 17α -hydroxyprogesterone caproate as a combined intramuscular injection once a week. In cases of mastopathy or a history of breast nodules $500\,\mathrm{mg}$ of the progestagen were given. 10–15 injections were administered during $2\frac{1}{2}$ to 4 months. During this time no bleedings occured. The contraindications, which have to be respected are those for estrogens and progestagens in general.

Material

A total of 78 cases was treated, of these 29 cases were less than 18 years old.

Effects

The treatment was surprisingly well tolerated. Most of the patients reported a feeling of increased well being. Transaminase values showed a slight increase in 6% of the patients which was comparable to those during normal pregnancy. Triglycerides and ß-lipoprotein cholesterol increased moderately within normal limits. Antithrombin III showed a slight but insignificant depression, factor X a small increase. The endometrium controlled by aspiration curettage in 16 cases displayed the picture of decidual reaction. No hyperplasia or atypical patterns were observed.

Side effects

Nausea was not registered. There was a weight increase in about 40% of the cases of 0.6-2.5 kg. 3% showed an increase of 2.5-3.5 kg. This could be prevented by food and fluid restriction. 11% had very slight edema of the lower extremities. In 2 cases striae occured in the region of nates and breast.

In one case a deep venous thrombosis occured, however the correlation to the treatment appeared to be questionable. The breast tissue did not show any pathological changes on palpation and occasional mammography. The patients did not complain of breast tenderness. In cases where the pill had been taken, it was withdrawn during treatment. Although very probably the pseudopregnancy is contraceptive, the use of other contraceptive measures was recommended. When an IUD was in situ, spottings were more often observed. In one case the filament of the IUD disappeared because of growth of the uterus. After the end of treatment a mostly prolonged withdrawal bleeding occured and a normal cycle returned after a few weeks in all cases, which had normal bleedings before treatment.

Results

The breast volume was assessed by measuring thorax circumference and breast extent in horizontal and vertical direction. In 68% of the cases there was an increase of breast volume which was up to 30% of the volume before treatment. 75% of the patients judged the treatment to be successful according to subjective impressions. In 34% of the cases there was a regression of attained volume after withdrawal of the treatment up to 10–20% when no additional measures were taken to maintain the success. When an oral contraceptive or a local estrogen ointment was given for some months afterwards, the breast volume could be maintained. In 12 cases the treatment was repeated 1–2 times after $\frac{1}{2}$ year and the final effect on the breast was again improved.

There were also some *positive side effects:* Improvement of acne, seborrhoea, alopecia and dysmenorrhoea were reported. In cases of uterine hypoplasia the length of the uterus increased for about 1–2.5 cm. In 32% of the patients there was no significant success of the treatment on breast volume. These were cases where normal previous pregnancies had not brought an increase of breast volume and those where the amount of breast tissue was relatively small. Thus in such cases a treatment is not promising and should not be begun.

Zusammenfassung

Bei 78 Patienten wurde eine Brust- und Uterushypoplasie durch eine Scheinschwangerschaft behandelt. Von diesen Patienten waren 29 jünger als 18 Jahre. Wir behandelten mit kombinierten Injektionen von 40 mg Östradiolyalerianat und 250 mg Hydroxyprogesteroncapronat intramuskulär einmal wöchentlich, insgesamt 10-15 Injektionen. Die Kontraindikationen waren die für Östrogen-Gestagen-Behandlung üblichen. Während der Behandlung tritt eine Amenorrhoe auf. Nach Absetzen kommt die Blutung fast immer nach 14 Tagen und normalisiert sich anschließend. Die Behandlung wird subjektiv sehr gut vertragen. Mögliche Nebenwirkungen sind Gewichtszunahme und Striae. Nur geringe Einflüsse auf Leberwerte. Gerinnungsparameter und Lipide wurden beobachtet. Schwere Nebenwirkungen traten nicht auf. Das Endometrium zeigt Dezidualisierung. Die Uterusgröße nahm um 2-3 cm zu. In etwa 70% der Fälle kommt es zu einer Zunahme des Brustvolumens von 10-30%. Diese Wirkung kann sich nach Absetzen der Behandlung zurückbilden, so daß in der Mehrzahl der Fälle eine Erhaltungstherapie mit örtlichen Östrogensalben oder mit Verordnung der Pille, wenn dies angezeigt ist, empfohlen werden muß. Mißerfolge treten auf in Fällen, wo auch während der Schwangerschaft keine Volumenzunahme der Brust auftrat und dann, wenn primär sehr wenig Brustgewebe vorhanden ist.

Prof. Dr. med. C. Lauritzen Universitäts-Frauenklinik Ulm (Dir.: Prof. Dr. med. C. Lauritzen)