

**Results:** At 1 year, change in bone mineral density did not differ between either the treatment or placebo groups. Medroxyprogesterone acetate 20 mg and 10 mg led to statistically significant reductions in very low density lipoprotein cholesterol, total triglycerides, and very low density lipoprotein triglycerides when compared with placebo. Medroxyprogesterone acetate 20 mg also led to a statistically significant reduction in high density lipoprotein cholesterol, high density lipoprotein-2 cholesterol, and high density lipoprotein-2 triglycerides. **Conclusions:** Medroxyprogesterone acetate at either dose as an adjunct to oestrogen did not improve bone mineral density at 1 year when compared with placebo. Medroxyprogesterone acetate 10 mg may not adversely affect lipids. Medroxyprogesterone acetate 20 mg, however, did reduce high density lipoprotein cholesterol and therefore may increase cardiovascular risk.

**Effective treatment of severe menstrual migraine headaches with gonadotropin-releasing hormone agonist and 'add-back' therapy**

Murray S.C.; Muse K.N.

USA

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**Objective:** To determine the efficacy of treating women with severe menstrual migraine headaches with GnRH agonist (GnRH-a) therapy, alone and combined with continuous estrogen-progestin 'add-back.' **Design:** Non-randomized, prospective treatment study. **Setting:** Outpatient clinic in a university medical center. **Patients:** Five women who had repetitive, severe, migraine headaches limited to the perimenstrual period were selected carefully. **Interventions:** After 2 months of basal evaluation, all subjects received GnRH-a (leuprolide acetate depot formulation, 3.75 mg i.m., monthly) for 10 months. Beginning with the 5th month, 'add-back' therapy (the addition of transdermal E<sub>2</sub>, 0.1 mg daily, and oral medroxyprogesterone acetate, 2.5 mg daily) was initiated. **Main outcome measures:** Patients rated headache severity from 0 (absent) to 3 (severe) each day; these were combined each month to obtain a cumulative score for that month. In addition, patients were asked their overall assessment of the treatments. **Results:** The mean headache scores for the GnRH-a treatment months ( $4.0 \pm 1.5$ , mean  $\pm$  S.E.) and for the GnRH-a and 'add-back' treatment months ( $3.1 \pm 0.7$ ) were each significantly lower than those of the control months ( $15.3 \pm 24$ ). The patients uniformly found both treatments to be well tolerated and near-curative for their condition. **Conclusions:** Gonadotropin-releasing hormone agonist administration, alone or with 'add-back' therapy, is a very effective treatment for carefully selected patients with severe, perimenstrual migraine headaches.

**Short-term effects of topical testosterone in vulvar lichen sclerosis** ScJoura E.A.; Zeisler H.; Bancher-Todesca D.; Sator M.O.; Schneider B.; Gitsch G.

AUT

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**Objective:** To evaluate the systemic and therapeutic effect of topical testosterone treatment in vulvar lichen sclerosis. **Method:**

This prospective clinical, single-arm study included ten post-menopausal women with vulvar lichen sclerosis. Testosterone propionate (0.04 g daily) was administered topically for 4 weeks. Serum androgens (testosterone, free testosterone, androstenedione, dehydroepiandrosterone sulfate) were determined before and after 4 weeks of treatment, and vulvodynia was evaluated by a horizontal visual analogue scale. **Results:** Serum levels of total testosterone increased in all patients ( $P < 0.01$ ) and exceeded normal range in eight of ten women. Vulvodynia improved in nine of ten patients (paired *t*-test:  $P < 0.01$ ). Four of ten patients showed clinical signs of hyperandrogenism (enlargement of the clitoris, alterations of the voice, increase in libido) after 4 weeks of treatment. The only patient without subjective improvement had elevated basal serum androgen levels and showed clinical signs of hyperandrogenism before therapy. **Conclusion:** Topical testosterone is effective in normoandrogenic women with lichen sclerosis. Androgen status should be evaluated before treatment, and dosage should be individualized to avoid virilization and metabolic side effects. Because there is a marked systemic effect, clinical controls and a follow-up with evaluation of serum testosterone levels are recommended. Other steroids should be included in therapeutic decisions.

**GYNECOLOGY, GYNECOLOGICAL SURGERY**

**Acute pelvic inflammatory disease: Associations of clinical and laboratory findings with laparoscopic**

Eschenbach D.A.; Wolner-Hanssen P.; Hawes S.E.; Pavletic A.; Paavonen J.; Holmes K.K.

USA

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**Objective:** To assess the relation of clinical variables and laboratory data to pelvic laparoscopic observations of tubal occlusion, adnexal adhesions, and peritoneal exudate in women with acute salpingitis. **Methods:** Clinical and laboratory evaluations were performed systematically before laparoscopy in 155 women with suspected acute pelvic inflammatory disease (PID), 82% of whom proved to have acute salpingitis confirmed with laparoscopy. Laparoscopic findings were scored in three categories (tubal patency, adhesions, and exudate). **Results:** Two general categories of laparoscopic findings were present: (1) tubal occlusion and moderate to severe adhesions in 30 women; and (2) pelvic-abdominal exudate in 27 women. In the remaining 16 women, these laparoscopic findings occurred alone or in other combinations. Among women with acute salpingitis, tubal occlusion was associated positively with older age, palpable adnexal mass, and moderate to severe pelvic adhesions; negative associations were found with abdominal rebound tenderness, mean abdominal-pelvic tenderness score, pelvic-abdominal exudate, and isolation of either Neisseria gonorrhoeae or Chlamydia trachomatis. Moderate or severe pelvic adhesions were associated positively with increased duration of abdominal pain (5 vs. 3 days) compared with limited or no pelvic adhesions, but they were associated negatively with mean abdominal-pelvic tenderness score and with pelvic-abdominal exudate (47% vs. 73%). Free exudate in