

In this supplement to the *American Journal of Clinical Dermatology* the use of the combined oral contraceptive (OC) ethinylestradiol/chlormadinone acetate (EE/CMA) 0.03 mg/2 mg in female patients with commonly seen disorders of the pilosebaceous unit (PSU): acne, female pattern hair loss (FPHL), hirsutism and seborrhea is discussed. These dermatological disorders share the features of being caused by hyperactivity of androgen within the pilosebaceous follicle, and although not life threatening are the source of a considerable psychological and emotional burden for patients. Approved in Europe as a contraceptive, EE/CMA 0.03 mg/2 mg is also currently being evaluated as a treatment for acne. Some data also exist suggesting that EE/CMA may have a beneficial effect in patients with FPHL, hirsutism and seborrhea.

Understanding the scientific basis of these conditions allows clinicians to predict that EE/CMA would be helpful in the treatment of disorders of the PSU. Drs Guerra-Tapia and Sancho Pérez from the Department of Dermatology and the Department of Gynecology and Obstetrics in Complutense University, Madrid, Spain, offer a comprehensive snapshot of the physiological and pharmacological mechanisms that act as the foundation of the pathophysiology of these conditions. Their 'state of the science' review reveals what we know about these diseases and also highlights the large gaps remaining in our understanding of these troubling conditions.

Implied by the cooperative effort of Drs Guerra-Tapia and Sancho Pérez is the fact that the best care of the female patient with disorders of the PSU often requires close cooperation between her dermatologist and her gynaecologist. As pointed out in the review, there are female patients who have elevated circulating androgen levels but do not manifest evidence of PSU disorders. Contrawise other patients have normal circulating androgens but still present with disorders of the PSU. Adequate work-up requires ruling out inherited disorders, congenital abnormalities and neoplasms as well as other endocrine disorders not treated simply with OC. As noted by Drs Guerra-Tapia and Sancho Pérez, the conversion of testosterone to dihydrotestosterone by 5 α -reductase is the important step in the pathophysiology of these diseases of the PSU. The enzyme 5 α -reductase remains an elusive target for effective pharmacological intervention.

By some estimates, acne occurs in up to 50% of women in their childbearing years and is thus the most common of the disorders of the PSU discussed in this supplement. Its frequency in the population of patients taking OC makes it a much easier disease to study than the other disorders it shares pathophysiology with. Combined OC of the oestrogen/progestin type may diminish the androgen effect on the PSU by decreasing androgen production in the ovary and adrenal as well as by blocking the interaction of androgens at the PSU. Comparative studies have been published documenting the effectiveness of EE/CMA in acne patients.

Drs Guerra-Tapia and Sancho Pérez used a comprehensive literature search to identify and review studies designed to document the effectiveness of EE/CMA in FPHL, hirsutism and seborrhea. Unfortunately, no comparative studies were found. However, as pointed out in the review within this supplement, there were subgroups of patients in various studies with FPHL, hirsutism and seborrhea.

A review of the data from these subgroups suggests EE/CMA would be helpful in treating these patients.

Many practitioners claim to prefer to practice ‘evidence-based medicine’ but are confronted daily by the dilemma of not having adequate information available to guide their clinical decisions. Although not considered ‘top-level evidence’ from a purely scientific viewpoint, case reports serve a distinct purpose. The clinician who is presented with a patient having a unique set of symptoms for which a double-blind, placebo-controlled trial is not available often needs some help to fill in the gaps of knowledge and give him or herself confidence to try a new treatment. As a primary care dermatologist myself I am aware that knowing that the therapeutic option under consideration has been helpful to at least one other physician–patient duo previously can be reassuring.

We are fortunate then to have available in this supplement a series of four case reports compiled by Mercedes Gómez Vázquez, Ramón Navarra Amayuelas, Marta Lamarca, Laura Baquedano, Sebastián Romero Ruiz, Eduardo Vilar-Checa and Maria D. Iniesta. Having already been presented with the ‘state of the science’ these case reports can be thought of as a ‘state of the art’ review. These case reports give the dermatologist a feel as to how EE/CMA can be used in similar patients they may see in their own practices. As the reader will note, disorders of the PSU often occur in clusters and may be associated with other non-dermatological conditions such as irregular menstruation, anovulation and polycystic ovarian disorder. A common theme in the case reports is that several menstrual cycles are sometimes needed for EE/CMA to produce optimal results in the concomitant PSU disorder.

Of particular interest in these case reports is the careful testing, imaging and examination used by these experienced practitioners to rule out other systemic causes of a PSU disorder. Dermatologists who are not willing to provide similar work-up should consider referring their patient out for these tests before starting the patient on OC.

The dermatologist in the USA is often confronted with a disease or constellation of symptoms for which there is not a drug that is US Food and Drug Administration approved. While there are many qualities that describe a good clinician, finding a safe and creative therapeutic option to improve a particular patient’s condition is to me one of the most important. It is good to remember that EE/CMA is not available in the USA at this time, is not yet approved for the treatment of acne in patients seeking contraception, and probably will never receive regulatory approval for the less common disorders of hirsutism, FPHL and seborrhea.

OC are usually well tolerated but like any drug have potential side-effects and risks. In female patients who desire contraception and who also have a disorder of the PSU, using EE/CMA as the choice of contraception may be a good option.

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