The Global Aware Group

Appropriate Care For Women With Androgen Excess

Essentials for the identification of androgen excess in women of reproductive age

Androgen excess affects approximately 10–20% of women of reproductive age.[1] Women with androgen excess may have accompanying anovulation and/or polycystic ovary syndrome (PCOS), both of which have reproductive and metabolic implications if left untreated.[2,3,4]

The global AWARE group is an independent panel of physicians with expert interest in the treatment of androgen excess in women. Formation of the AWARE group and its ongoing work is supported by Bayer AG.

1. ASK[5]

What to ask?

- Previous treatment and/or self care (e.g. use of make-up, shaving, waxing)
- Menstrual irregularity (intervals <21 days or >35 days; prolonged or heavy menstrual bleeding)
- Ovulatory dysfunction (irregular intervals, intervals of <21 or >35 days; or delayed ovulation)

Why?

- Make-up or regular waxing or shaving can disguise the symptom severity
- Hyperandrogenic skin symptoms and menstrual or ovulatory dysfunction could be PCOS

2. ASSESS[5]

What to asess?

- Clinical presence of skin symptoms such as acne*, hirsutism, seborrhea and alopecia

*For assistance with the identification of acne due to androgen excess, please see the 'Educational manual: Female acne for non-dermatologists'

- Biochemical evidence of elevated androgens
- Body mass index (BMI)
- Waist/height ratio (WHR)
- Blood pressure (BP)

Why?

Androgen excess can present as:

- **clinical hyperandrogenism** - the pilosebaceous unit has increased sensitivity to normal serum androgen levels
- **biochemical hyperandrogenism** - excessive production and/or secretion of androgens which may be of ovarian or adrenal origin and a symptom of PCOS
- Central obesity and preventable diseases associated with metabolic syndrome may indicate PCOS as the cause of androgen excess

SUSPECT PCOS?
Please use 'The effective management and monitoring of PCOS checklist'

3. CONSIDER[6-10]

What to consider?

- Emotional wellbeing
- Quality of life
- Long term health

Why?

- Hyperandrogenic skin symptoms are associated with significant quality of life and psychological impairment
- Androgen excess may lead to increased risk of metabolic syndrome and endometrial hyperplasia or malignancy if left untreated, particularly if there is accompanying anovulation or PCOS[2,3,4]

4. TEST[5]

What to test?

- Thyroid stimulating hormone (TSH)
- Prolactin
- Quality of life

Why?

- Thyroid dysfunction, pituitary tumours and non-classic congenital adrenal hyperplasia (NCAH) are all potential causes of androgen excess

1. Redmond GP. Int J Fertil Womens Med. 1998;43(2):91–7; 2. Fauser BCJM et al. Am Soc Rep Med. 2012;97(1):28-38. e25; 3. Barry J et al. Human Reprod Update. 2014;20(5):748-758; 4. Chittenden BG et al. Reprod Biomed Online. 2009;19:398-405; 5. Sirmans S and Pate KA. Clin Epidemiol 2014;6:1–13; 6. Ekback MP et al. Dermatol. 2013;227:278-284; 7. Aktan et al. Int J Dermatol 2000;39:354-357; 8. Koo JYM and Smith LL. Pediatr Dermatol 1991;8:185-188; 9. Stern RS. Dermatol 2000;43:1042-1048; 10. Kellet SC and Gawkrodger DJ. Br J Dermatol. 1999;140(2):273-82.

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Essentials for safe practice and prescribing in the management of androgen excess

5. EXPLAIN

What to explain?

- The pathophysiology of symptoms in simple, patient-focused language
- How the treatments work
- The need for a follow-up plan

Why?

- Increasing patient knowledge helps to empower patients[11]
- To help patients understand the importance of correct and consistent treatment, especially in long-term conditions[12]
- Skin symptoms such as acne and hirsutism often require long-term treatment[13]

6. TREAT

What to treat?

- Bothersome symptoms of clinical hyperandrogenism i.e. acne, hirsutism, seborrhea and alopecia
- Symptoms of biochemical hyperandrogenism such as endometrial or metabolic complications

- Use established treatment combinations for androgen excess and follow clinical guidelines and relevant criteria for use
- Patients must be carefully screened before using any estrogen/progestogen combinations, and pregnancy must be excluded
- Further guidance on contraindications is available in the **"WHO MEC for contraceptive use"**[16]

Why?

- To help to improve the symptom-related quality of life and psychological impairment[14,15]
- To help reduce the risk of both reproductive and metabolic/cardiovascular consequences associated with long-term androgen excess disorders[2,19]

- EE in combination with progestogens with antiandrogenic potential (CPA, CMA, DNG or DRSP) are preferred treatment options[16,17]
- CPA combined with EE is indicated for the treatment of moderate to severe acne related to androgen-sensitivity (with or without seborrhea) and/or hirsutism, in women of reproductive age[16,18]

7. REFER IF

When to refer?

- Suspicion of androgen-secreting tumour
- Undiagnosed bleeding
- Severe psychological morbidity for example, severe anxiety and/or depression
- Scarring acne
- Fertility problems

Why?

- An androgen-secreting tumour requires urgent confirmation of diagnosis and treatment
- Menstrual dysfunction and irregular bleeding can have multiple, different etiologies; the possibility of endometrial abnormality should be excluded with use of ultrasound (if available)
- For effective treatment of depression, anxiety or other symptom of psychological morbidity due to symptoms of androgen excess
- Severe, scarring acne requires specialist treatment from a dermatologist
- Referral for assisted reproduction techniques and counselling may be needed for women who still have difficulty conceiving due to androgen excess

EE: ethinylestradiol, CPA: cyproterone acetate, CMA: chlormadine acetate, DNG: dienogest

11. Chen J et al. Health Educ. Behav. 2016;43(1):25-34; 12. Brown MT and Bussell JK. Mayo Clin Proc. 2011;86(4):304-314; 13. Bitzer et al. [In preparation]; 14. Tartagni M et al. Fertil Steril. 2000;73(4):718-23; 15. Chung JP et al. J Pediatr Adolesc Gynecol. 2014;27(3):166-71; 16. World Health Organisation (WHO). Available at: http://www.who.int/reproductivehealth/publications/family_planning/MEC-5/en/; 17. Yildiz BO. Semin Reprod Med. 2008;26:111-120; 18. Diane-35® Summary of Product Characteristics; 19. Legro RS et al. J Clin Endocrinol Metabol. 2013;98(12):4565-4592.

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