Understanding the causes and management of hirsutism

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Female hirsutism is an embarrassing condition that threatens both a woman’s perception of her femininity and her self-esteem. There are various causes of excessive facial hair in women, the most common being polycystic ovary syndrome. Periods of hormonal flux such as pregnancy and the menopause can exacerbate the condition.

Female hirsutism can make women extremely self-conscious, threatening both their sense of femininity and self-esteem. In some cases sufferers may even avoid close physical contact, making them appear unapproachable. The psychological effects of excessive facial hair (EFH) may be so profound as to impair a woman’s quality of life, lead her to avoid work or social situations and result in depression.

EFH in women is defined as unwanted coarse hair on the face in a typical adult male pattern – for example, on the chin, neck and cheeks. The condition is thought to affect up to 15 per cent of adult women in the UK (Azziz, 2003) and is more common in certain groups, such as Asians.

In addition to its emotional and psychological consequences, EFH may indicate a more serious underlying condition requiring medical treatment. However, women already embarrassed by what they perceive as a masculine trait may feel reluctant to discuss it with a male GP. As facial hair is acceptable and normal in men, some women may feel more comfortable seeing a female practice nurse with what is a uniquely feminine problem. These patients often require additional emotional support from the nurse.

Although hirsutism can be considered a cosmetic problem, it causes embarrassment and emotional distress. It is important to adopt a caring and sensitive approach to these patients (Archer and Chang, 2004).

Diagnosing the underlying cause

Many women presenting with EFH for the first time are keen to find out not only how to manage it but also if there is an underlying cause.

Polycystic ovary syndrome

Polycystic ovary syndrome (PCOS) is the most common cause of EFH, accounting for up to 70–80 per cent of cases (Azziz, 2003). PCOS is a wide-spectrum disorder that can cause a variety of problems for women, with some suffering more symptoms than others (Jones, 2005). Symptoms include:

- Difficulties with fertility;
- Obesity;
- Irregular periods;
- Excessive facial hair;
- Thinning hair on the scalp;
- Skin problems such as acne (Jones, 2005).

About half of women with PCOS show impaired glucose tolerance and are at an increased risk of developing type 2 diabetes. This patient group also has a greater long-term risk of cardiovascular disease and endometrial cancer (Kidson, 1998).

Blood tests are used to check for hormonal abnormalities and confirm the diagnosis of PCOS. An increased luteinising hormone (LH) to follicle stimulating hormone (FSH) ratio, serum LH in excess of 10 IU/L, reduced levels of sex hormone-binding globulin (SHBG), and serum testosterone at or exceeding the upper normal limit are all indicative of PCOS. Excessive levels of testosterone can result in male-pattern facial hair growth because they cause hair in this part of the body to become thicker, darker, longer and therefore more noticeable. It can also lead to hair loss from the crown of the head of the type that occurs in male-pattern baldness.

Menopause

When women enter the menopause they experience a huge shift in their hormones. Their hormonal profile becomes more masculine because oestrogen levels fall while the levels of testosterone remain the same.

Learning objectives

- Understand the various potential causes of excessive facial hair;
- Appreciate the psychological consequences of excessive facial hair;
- Be familiar with the key medical treatment options available;
- Be aware of the benefits of the different hair-removal techniques.

Each week Nursing Times publishes a guided learning article with reflection points to help you with your CPD. After reading the article you should be able to:

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REFERENCES


should be diagnosed as quickly as possible to eliminate any potentially life-threatening causes. Women with PCOS may need additional counselling, particularly those whose infertility is affecting their hopes of starting a family.

**Management options**

Treatment of hirsutism necessarily depends on the underlying condition. Hormonal therapy may be recommended with products containing cyproterone acetate (CPA), a progestogen with anti-androgenic properties. CPA is often combined with a synthetic oestrogen such as ethinylestradiol. In addition to its potential to improve hirsutism, ethinylestradiol is a contraceptive and can also help ameliorate acne. It can take up to a year of treatment before the desired facial hair loss is achieved and treatment may need to be continued for as long as the patient wishes to be treated. However, it is only indicated for moderately severe cases of hirsutism, partly due to the risk of venous thromboembolism because patients with underlying PCOS are at an increased risk of cardiovascular events.

Other treatments that are not specifically licensed for hirsutism can also be used such as CPA alone, spironolactone and metformin. Treatment with these medicines should be overseen by a specialist. Patients who take CPA on its own should be made aware that it can take up to a year of treatment before the full benefits are seen. The hair invariably returns rapidly when treatment is stopped, so regular therapy cycles are required to control hirsutism in the long term.

Spironolactone is a potassium-sparing diuretic with anti-androgenic activity. When used in combination with oral contraceptives it can be beneficial for women with severe hirsutism (particularly when it is caused by excess levels of androgen) as it competes with androgen receptors in the hair follicle (Rittmaster, 1997). Spironolactone treatment can significantly reduce hirsutism after 12 months of treatment (Kelestimur et al, 2004).

The oral antihyperglycaemic agent metformin can be effective in reducing hirsutism caused by PCOS. Metformin improves hirsutism by reducing the levels of circulating insulin in the body (Harborne et al, 2003) and decreasing the concentration of free androgen.

Research has revealed that metformin can be effective for the treatment of hirsutism caused by PCOS (Harborne et al, 2003). It reduces circulating testosterone in such women and, furthermore, extended use can lead to a reduction in body mass index and help regulate the menstrual cycle (Harborne et al, 2003).

Metformin can be prescribed for women with PCOS whose hirsutism is thought to arise from insulin resistance, a condition where the ovaries produce excess androgens (Goodheart, 2000).

**Impact on quality of life**

EFH can have a considerable effect on women’s quality of life. Not only are they worried that it may be a symptom of something more serious but also they may need support to help them come to terms with the emotional consequences of having a male secondary sexual characteristic.

Because they see their condition as embarrassing and as a threat to their femininity, women can be reluctant to seek help from a health care professional. Those who do seek help need to be treated in an understanding way and the underlying cause should be diagnosed as quickly as possible to

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**REFERENCES**


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Topical cream
Efflornithine cream is a prescription-only, topical cream that slows the growth of excessive facial hair so that hair removal methods can be carried out less often. Efflornithine acts by inhibiting the enzyme ornithine decarboxylase, which is critical to hair growth (Barman Balfour and McClellan, 2001). This slows the rate of hair growth.

Treatment with efflornithine has also been shown to reduce the volume of the hair, making it finer and appear less noticeable (Huber et al, 2000). It can be used alongside medical treatments and mechanical hair removal methods to enhance their efficacy. Most patients can expect to see results after about eight weeks of efflornithine use, although statistically significant improvements have been seen from four weeks after treatment initiation (Huber et al, 2000).

Pharmacological treatments can be prescribed in conjunction with physical and cosmetic therapies (such as shaving and electrolysis) to enhance their effect. The treatment of hirsutism requires a dual approach: reduction of the androgen ‘drive’ and removal of the terminal hair, for example using mechanical hair-removal techniques.

Mechanical removal
As drug therapy may take some time to work, it cannot address the immediate problem of visible facial hair. Mechanical hair removal treatments can be used to manage the problem either on their own or as an adjunct to pharmacological therapy.

The main methods include tweezing, shaving, waxing, electrical depilation and laser therapy. Although tweezing and waxing are simple and quick to carry out in patients’ own homes, there is anecdotal evidence that they may exacerbate EFH by damaging the hair follicle and causing the hair to grow back thicker and coarser than before. The use of plucking and/or waxing can cause folliculitis (inflammation of the hair follicle) and damage to the hair shaft, with subsequent development of ingrown hairs and further skin damage.

Shaving may need to be carried out once or even twice a day in some cases and can aggravate sensitive facial skin. Contrary to popular belief, however, shaving does not cause hairs to grow back more thickly than before although they can appear more obvious as the end of the hair is club-cut and not tapered like an uncut hair. The main disadvantage of shaving is that it is perceived as a masculine activity. However, there are now some razors available designed specifically with women in mind. However, these solutions are temporary and optimal management is achieved by a combination of mechanical and pharmacological techniques.

Professional electrical depilation using either galvanic, diathermic or a blend of both is the only method clinically proven to achieve permanent hair removal. Professional electrical depilation removes or disables the blood supply to the hair itself. However, it can take up to two years to be effective (Shenenberger and Utecht, 2002). This method carries some risk of scarring so patients should be advised to consult only professionally qualified practitioners.

Laser therapy
Laser therapy is a relatively new treatment option that provides safe and rapid hair removal. Laser light passes through the surface of the skin, is absorbed by melanin (the only endogenous pigment in the follicle) and is converted into heat energy, destroying the hair tissue. This technique is most effective when hair is in its growth phase.

Recently, a number of lasers have been developed with the potential for rapid treatment of large areas and for long-lasting hair removal. Hair counts are progressively reduced after each laser treatment, which can make shaving the affected area unnecessary in some cases. While long-term hair reduction is achieved in most patients after a series of laser treatments, partial hair regrowth typically occurs within six months, making additional treatments necessary (Handrick and Alster, 2001). Complete hair loss is rarely achieved.

The ideal patient for treatment with laser hair removal is fair skinned with dark hair. Dark skin carries the risk of epidermal damage such as scarring or dyspigmentation. It is important that patients are accurately informed of the process and the potential risks of laser treatment such as dyspigmentation, itching and pain.

Studies have shown that treatment with laser therapy in conjunction with efflornithine cream is superior to laser therapy alone (Hamzavi, 2003).