THE E-NEWSLETTER AUGUST 2025



Society of Meaningful life Management

THEME: THE SECOND SPRING HOLISTIC HEALTH FOR MIDLIFE WOMEN

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#### **President SMLM Message**

#### Editor in chief - Dr Prof (Hony) Maninder Ahuja



At SMLM, we believe that women's health cannot be boxed into mere topics and treatments—it has to be understood through narratives, lived experiences, and perspectives. A single problem in women's health often takes on countless presentations, and at the same time, seemingly different problems may lead back to the same

root. This complexity is what makes women's health both challenging and fascinating. In this issue, we bring you fresh insights and critical reflections:

Journal Scan on Osteoporosis – by Dr. Maninder Ahuja Anti-obesity Drugs – by Dr. Geeta Balsarkar, Perspective on PCOS - by Dr. Pratik Tambe, Role of Glutathione in Health – by Dr. Jaideep Malhotra /Dr.Neharika Malhotra, Obesity Control with Ketogenic Diet – a must-read by Dr. Faisal Khan, Editor's Lens - by Dr. Neharika Malhotra a view of Menopause. And because knowledge is best retained when enjoyed, test your wits with our Puzzle and Quiz Corner curated by Dr. Neha and Dr. Amrita. Each contribution is chosen not to simply inform, but to provoke thought and inspire action in daily practice. We invite you to explore this treasure of knowledge at SMLM.in — and carry forward the conversation of holistic health with us. Go ahead, dive in, and enjoy reading!

#### **Secretary SMLM Message**

#### Dr. Anita Kant



- · Chairman, OBG Services, Asian Institute of Medical Sciences, Faridabad, Ha-
- Past president Faridabad Obstetrics & Gynaecology Society (FOGS)
- Past president Faridabad Menopausal Society (FMS)
- Member of FOGSI Vaccination Committee

Dear readers,

#### **Midlife Reflections**

As we navigate the journey of midlife, let's embrace it with courage, curiosity, and self-love. This phase is a time for growth, reflection, and transformation. Let's rediscover our passions, nurture meaningful relationships, and prioritize our well-being.

In this new chapter of life, let's celebrate our experiences, learn from our challenges, and shine with authenticity. Midlife is not a crisis, but an opportunity for renewal and purpose. Let's break free from expectations and unleash our true potential. You are stronger, wiser, and more resilient than you think. Here we present some insights into some common ailments.

Stay tuned for more insights, tips, and stories on thriving in midlife!

#### **EDITORIAL TEAM**





I've discovered [menopause] is your moment to reinvent yourself after years of focusing on the needs of everyone else.

OPRAH WINFREY



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#### **Editorial**



**Dr Neharika Malhotra**Consultant OBgyn and infertility at
Rainbow IVF, Agra

#### Dear Readers,

It gives me immense pleasure to welcome you to the second issue of our newsletter, dedicated to two important health concerns that affect women across the world—menopause and osteoporosis.

Menopause is a natural transition in a woman's life, yet it often comes with physical, emotional, and social challenges that deserve greater awareness and open conversations. Alongside, osteoporosis silently weakens bones and significantly impacts quality of life, especially in postmenopausal women. Both demand timely attention, preventive care, and empathetic management.

In this issue, we bring you insights from experts, practical lifestyle tips, the latest scientific updates, and inspiring stories that highlight resilience and strength. Our goal is to empower women, families, and healthcare providers with knowledge that transforms awareness into action.

I sincerely thank our contributors, readers, and supporters for making this initiative stronger with each edition. Together, let us continue to break myths, spread awareness, and work towards healthier, happier lives. Warm regards,

Dr Neharika Malhotra

#### **Menopause Crossword Puzzle**

#### **Across**

- 1. Sudden feeling of heat common in menopause
- 4. Weakening of bones after menopause (short form)
- 6. Hormone that decreases during menopause
- 7. Cessation of \_\_\_\_\_ for 12 months defines menopause
- 9. Vaginal dryness can lead to painful \_\_\_\_

#### Down

- 2. Mood \_\_\_\_\_ are common during menopause
- 3. A treatment using estrogen to relieve symptoms (abbr.)
- 5. Menopause before age 40 is called \_\_\_\_\_ menopause
- 8. Most common sleep-related problem in menopause

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## WHAT IS KETOGENIC DIET

#### **FAISAL KHAN**

#### Physical fitness expert

#### What is a ketogenic diet?

- It is a high fat, low carbohydrate and adequate protein diet. Therapeutically used in the treatment of intractable epilepsy.
- It aims to decrease the number and severity of the patients' seizures.
- Therefore improving the quality of life and hopefully reducing medication use.
- In recent decade it has gain popularity in western world as well as in India in losing fat, thus body weight (A A Gibson et al, 2015).

**Ketosis** is a metabolic process that happens when your body doesn't have enough carbohydrates to burn for energy, it burns stored fat instead and makes things called ketones, which can be used as an alternate fuel for the body.

Ketosis is a popular low-carb weight loss program. In addition to helping you burn fat, ketosis can make you feel less hungry. It also helps you keep muscle (J S Volek et al 2014).

Some research suggests that ketogenic diets might help lower your risk of heart disease. Other studies show that specific diets very low in carbs help people who have diseases such as:

- -Metabolic syndrome
- -Insulin resistance
- -Type 2 diabetes

Researchers are also studying the effects of these diets on conditions including:

Acne, Cancer (A Khodabakhshi et al 2020), Polycystic ovary syndrome (PCOS), Nervous system diseases like Alzheimer's, Parkinson's, and Lou Gehrig's disease (J PGuisado 2008)

#### **Ketosis Symptoms and Side Effects**

During the first week of a keto diet, you might start to feel bad because of "keto flu," but it isn't an official medical condition. This is basically due to sugar and carbohydrate withdrawal. Or it could be because of changes to your gut bacteria or an immune system reaction. You might notice temporary side effects such as: Headache, Fatigue, Brain fog, Irritability, Constipation, Trouble sleeping Nausea Dizziness Sugar cravings, Cramps, Sore muscles, Bad breath, also known as keto breath



#### **Ketosis versus Ketoacidosis:**

- If you have diabetes that isn't under control, ketosis can become dangerous when ketones build up. High levels lead to dehydration and change the chemical balance of your blood. It becomes acidic and can cause a coma or death.
- People who have diabetes can get ketoacidosis, or diabetic ketoacidosis (DKA), when they don't take enough insulin. They can also get DKA when they're sick or injured or when they don't get enough fluids and become dehydrated.
- Some people who don't have diabetes can get ketoacidosis, too. It's caused by alcoholism, starvation, or an overactive thyroid. A healthy low-carb diet shouldn't cause a problem.

#### **Conclusion:**

- Ketogenic diet is beneficial in many ways including weight loss (fat loss), treating many diseases as mentioned earlier, improved and enhanced sports performance, mental alertness etc.
- Better suited for Non-vegetarian over vegetarian because the protein and fat sources are more in nonvegetarian diet as compared to vegetarian (only tofu and paneer as source of protein on Ketogenic diet)
- Better for people with high purchasing power as protein are costlier than any other macronutrient. Yes, you can survive on eggs and paneer but it will cause menu fatigue in short time.
- Not sustainable in Indian culture because of lack of understanding of nutrition and less support from family and friends.
- If not ketosis then what? I would suggest to stick to a balance diet with low Glycaemic Load food, lean protein and good fat (FYI- Saturated fats are not bad but sugar is).

# Cancer Concerns Around Popular Weight-Loss Drugs Like Ozempic



**Dr. Balsarkar Geetha**Editor in chief
JOGI 2021 to 2023



GLP-1 receptor agonists, including Ozempic (semaglutide), Wegovy, and Mounjaro (tirzepatide), have transformed weight loss treatment — but scientists are still investigating their long-term safety.

These drugs, originally developed for type 2 diabetes, help lower blood sugar and reduce appetite. While effective, they have been linked to side effects like nausea, constipation, and rapid-weight-loss "Ozempic face."

The biggest cancer concern is thyroid tumors. Animal studies found high doses of GLP-1 drugs can trigger thyroid cancer, and a large French study suggested a possible link in humans using them for over a year. As a precaution, they're not recommended for those with a personal or family history of thyroid cancer or certain genetic syndromes.

Early concerns about pancreatic cancer

remain unproven, though GLP-1 drugs have been associated with pancreatitis, a known cancer risk factor. Interestingly, tirzepatide has shown tumor-shrinking effects in animal studies, but it's too early to apply these findings to humans.

Obesity itself raises cancer risk for several types, so weight loss from these drugs could lower that risk — but whether it's the medication or the weight loss driving the benefit remains unclear.

#### RESEARCH PAPER

Julien Bezin et al, "GLP-1 Receptor Agonists and the Risk of Thyroid Cancer", Diabetes Care (2025)

# The Role of Glutathione in Bone Health in Women: A New Frontier in Osteoprotection

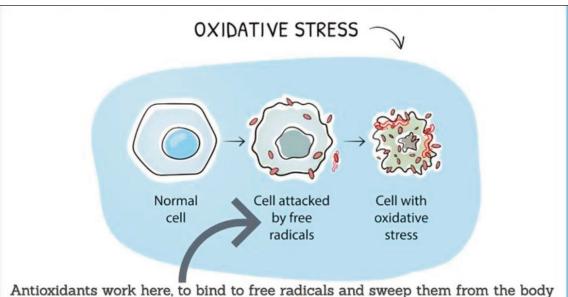


Prof. Dr. Jaideep Malhotra

- Managing Director: ART Rainbow IVF, Ujala Cygnus Rainbow Hospital and Malhotra Nursing & Maternity Home,
- President Elect InSARG



**Dr Neharika Malhotra**Consultant OBgyn
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BEFORE they can kill your cells and tissues and cause oxidative stress.

Glutathione is one, others are Vitamin D and C, Zinc, Catalase, EGCG and more!

#### **Abstract**

Oxidative stress plays a pivotal role in the pathogenesis of osteoporosis, particularly in postmenopausal women. Glutathione (GSH), a master intracellular antioxidant, has emerged as a key regulator in maintaining bone health by modulating redox balance, osteoblast differentiation, and osteoclast activity. This article summarizes the current understanding of glutathione's role in female bone metabolism, highlighting recent findings and potential therapeutic applications.

#### Introduction

Bone health in women is intricately influenced by hormonal, genetic, nutritional, and oxidative factors. Estrogen deficiency after menopause accelerates bone resorption through enhanced oxidative stress and inflammatory cytokine release. Glutathione, an abundant tripeptide composed of glutamate, cysteine, and glycine, is critical in neutralizing reactive oxygen species (ROS) and maintaining cellular homeostasis. Recent research has expanded its role from general antioxidant defense to a direct modulator of bone cell function.

#### **Glutathione and Osteoblast Function**

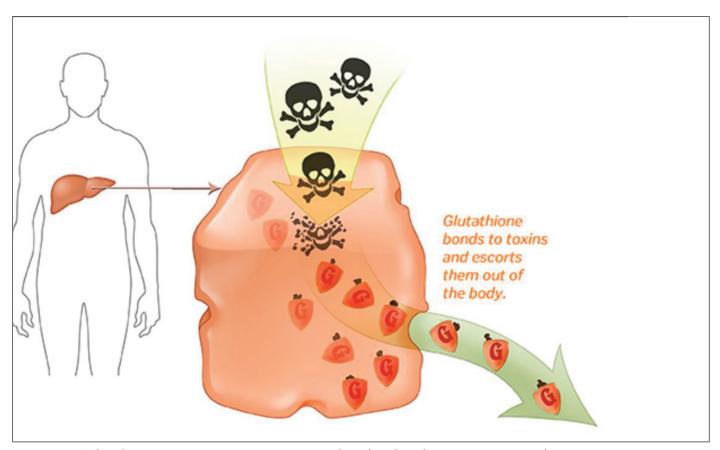
Osteoblasts, responsible for bone formation, are highly susceptible to oxidative damage. Studies have shown that GSH levels correlate with osteoblast proliferation and activity. In vitro experiments suggest that GSH enhances Wnt/ $\beta$ -catenin signaling—a critical pathway for osteoblast differentiation (Zhao et al., 2023). Moreover, Nrf2 activation, which boosts intracellular GSH synthesis, promotes osteogenesis (Li et al., 2022).

#### **Glutathione and Osteoclast Inhibition**

Excessive osteoclast activity is a hallmark of postmenopausal osteoporosis. ROS stimulate osteoclast differentiation via RANKL-induced pathways. GSH acts as a negative regulator by buffering ROS levels and inhibiting NF-κB activation. Supplementation with GSH precursors such as N-acetylcysteine (NAC) has been shown to reduce osteoclastogenesis in animal models of estrogen deficiency (Kim et al., 2022).

## Clinical Implications for Women's Bone Health

Emerging clinical data suggest lower



systemic GSH levels in osteoporotic women compared to age-matched controls (Wang et al., 2024). Additionally, dietary intake of GSH-boosting nutrients (e.g., vitamin C, selenium, and sulfur-containing amino acids) is associated with higher bone mineral density (BMD) in epidemiological studies. Therapeutic strategies aiming to elevate intracellular GSH, including NAC supplementation or activation of the Nrf2 pathway, are being explored as adjuncts to current antiresorptive treatments.

#### **Conclusion**

Glutathione is not merely a cellular antioxidant but a potent modulator of bone cell dynamics. Its regulatory role in oxidative stress, osteoblast differentiation, and osteoclast suppression positions it as a promising target in managing bone loss in women, particularly during the menopausal transition. Future longitudinal and interventional studies are warranted to validate its clinical benefits in osteoporosis prevention and treatment.

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https://doi.org/10.3390/nu15030550

## Zoledronic Acid -New pathway for fracture prevention of Menopause Osteoporosis



**Dr. Maninder Ahuja**President SMLM,
Editor in Chief Udan



As we are now living in aging world, it becomes imperative to find treatment and management aiming to be cost effective ness of drugs for quality of life issues and longevity and cutting down morbidity and to reduce public health expenditure One of main co morbidities of aging and menopause is osteoporosis and osteorporosis related fractures .. Osteoporotic fractures occur in. 50 % of postmenopausal women. Bone loss accelerates the year before and for 3-4 years after the last menstrual period with a loss of 6.3% loss over the transition. Women with normal bone density would become osteoporotic by the average age of 82 but a women with T score of - 0.1 at menopause transition would become osteoporotic by the age of 64, so fractures become important to be prevented by proper management and prevention (1) Reid et all (2) have shown that Zoledronate prevents fractures, in older women when it is administered every 12 to 18 months. Its effects on bone density and bone turnover persist beyond 5 years.

Recently, Bolland et al. <sup>(3)</sup>conducted a 10year, prospective, double-blind, randomized, placebo-controlled trial of early postmenopausal women (age 50-60 years) with bone mineral density T scores lower than 0 and higher than -2.5 at the lumbar spine, femoral neck, or hip to investigate whether administering infrequent zoledronate would prevent vertebral fractures in early postmenopausal women. Participants were randomized into three groups -Zolendrate -zolendrate groip- 5 mg of IV zoledronate at baseline (n=352) and at 5 years

Group 2 -zolendrate -placebo group - zoledronate at 5 mg at baseline (n=351) followed by placebo at 5 years
Group 3 – Placebo -placebo group -placebo at both baseline (n=351) and 5 years
Spinal radiographs were obtained at baseline, 5 years, and 10 years.
The primary end point was morphometric vertebral fracture, which was defined as at least a 20% change in vertebral height from baseline radiograph.

Secondary end points were fragility fracture, any fracture, and major osteoporotic fracture. 1,003 women mean age 56 completed 10 years of follow-up. A new morphometric vertebral fracture occurred in 22 women (6.3%) in the zoledronate-zoledronate group, in 23 women (6.6%) in the zoledronate-placebo group, and in 39 women (11.1%) in the placebo-placebo

group (RR, zoledronate-zoledronate vs. placebo-placebo, 0.56 [95% CI, 0.34 to 0.92; P = 0.04]; and zoledronate-placebo vs. placebo-placebo, 0.59 [95% CI, 0.36 to 0.97; P = 0.08]). The RR of fragility fracture, any fracture, and major osteoporotic fracture was 0.72 (95% CI, 0.55 to 0.93), 0.70 (95% CI, 0.56 to 0.88), and 0.60 (95% CI, 0.42 to 0.86), respectively, when zoledronatezoledronate was compared with placebo-placebo and 0.79 (95% CI, 0.61 to 1.02), 0.77 (95% CI, 0.62 to 0.97), and 0.71 (95% CI, 0.51 to 0.99), respectively, when zoledronate-placebo was compared with placebo-placebo. The authors conclude that after ten years, zoledronate administered at baseline and at 5 years was effective in preventing morphometric vertebral fracture in early postmenopausal women. Osteoporosis is a chronic condition and

long-term, sometimes lifelong,
management is required. In individuals at
high risk of fracture, the benefit versus
risk profile is likely to be favourable for up
to 10 years of treatment with
bisphosphonates or denosumab. In

people at a very high or imminent risk of fracture, therapy with teriparatide or abaloparatide should be considered; however, since treatment duration with these drugs is restricted to 18-24 months, treatment should be continued with an antiresorptive drug.

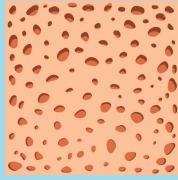
#### Take home key points

- 1. 50% of women will sustain a fracture after menopause.
- 2. Low dose zoledronic acid intravenously administered in 2 doses 5 years apart reduced vertebral fractures for up to 10 years.
- 3. Prevention of fractures whether by prophylactic hormone therapy or intermittent low dose bisphosphonate is a consideration for women with bone density less than T score of 0.
- 4. Discussion are going on that perhaps it is time to change the paradigm on management for asymptomatic perimenopausal women with the addition of a routine DEXA score to make individual treatment recommendations for future bone protection.

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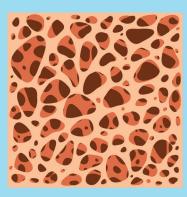
#### STAGES OF OSTEOPOROSIS



NORMAL BONE



OSTEOPENIA



**OSTEOPOROSIS** 

**SEVERE OSTEOPOROSIS** 

2. Reid IR, Horne AM, Mihov B, et al. Fracture Prevention with Zoledronate in Older Women with Osteopenia. N Engl J Med.2018;379(25):2407-2416.

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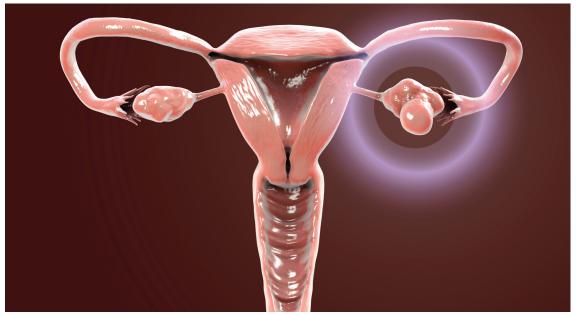
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## **Patient Perspectives in PCOS**



**Dr Pratik Tambe** MD FICOG FICRM FICMCH FIAOG **Governing Council** member, ICOG (2020-25)**Governing Council** member, ICRM (2024-26)Chairperson, FOGSI **Endocrinology Com**mittee (2017-19) Chairperson, AMOGS Endocrinology Committee (2020-24)Managing Council member, MOGS, ISAR, MSR



#### **Background**

Polycystic Ovary Syndrome (PCOS) is a common hormonal disorder that affects women of reproductive age. This article looks at the common issues experienced by woman with PCOS and their experience of managing the condition through evidence-based practices.

#### **Case history**

A 28-year-old woman, married for 3 years, presented with complaints of irregular cycles and weight gain. She was also desirous of conception and was subjected to immense social and family pressures regarding her inability to conceive.

Her husband worked for a marketing agency and kept irregular hours. He was also a smoker and an occasional alcoholic. On examination, both were overweight (75 and 85 kg, respectively). The female partner had acne, mild hirsutism and truncal obesity with a waist circumference of 102 cm. Transvaginal ultrasound revealed polycystic ovary morphology with 10-15 follicles in each ovary. The male partner had a BP of 160/100 mm Hg, and local examination did not reveal any issues.

The consultant advised some basic investigations, including a hormonal profile containing sTSH, PRL, AMH and male partner semen analysis. Her s AMH was 2.8 ng/mL and the partner's semen analysis was within normal limits.

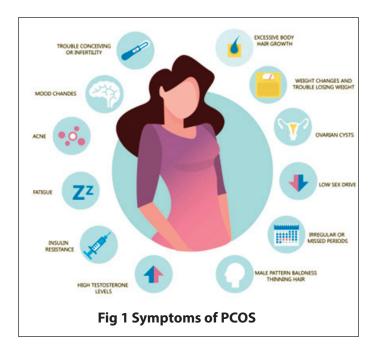
A diagnosis of obese classic polycystic ovary syndrome was made on the basis of clinical hyperandrogenism and polycystic ovary morphology with truncal obesity. Being highly motivated, she was offered a multidisciplinary team approach with a nutritionist, personal trainer, physician and endocrinologist

She was advised to make lifestyle modifications, including dietary restrictions, physical exercise (such as walking for 45 minutes daily) and strength training on 2-3 occasions a week. She was also prescribed insulin sensitisers and followed up with follicular monitoring. The husband was referred to a physician for control of his BP and weight. At the end of three months, she had lost 5 kg and her waist circumference had decreased to 95 cm. Her cycle regularity was restored and after ovulation induction with Letrozole 5 mg she conceived with a timed intercourse cycle. Her pregnancy is now in the 20th week and proceeding uneventfully so far. Her husband's BP was brought under control with anti-hypertensives and he has also successfully lost 10 kg over six months.

#### **Discussion**

PCOS is characterised by an imbalance in female sex hormones, which can lead to irregular menstrual cycles, excessive hair growth, acne and obesity. The exact cause of PCOS is unknown, but it is believed to be related to

insulin resistance, genetic factors and environmental influences.



Phenotype A or obese classic PCOS is the most commonly encountered type of PCOS, the hallmarks of which include truncal obesity, increased waist circumference, altered waist hip ratio, acne/ hirsutism and polycystic ovary morphology (PCOM) on ultrasound.

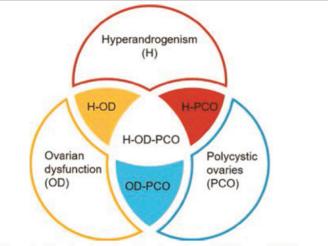


Figure 1: Four phenotypes based on three diagnostic features of PCOS. Current sets of diagnostic features give rise to a different number of PCOS phenotypes i.e., Type A: Hyperandrogenism, ovarian dysfunction and ultrasonographic appearance of polycystic ovaries; Type B: Hyperandrogenism and ovarian dysfunction; Type C: Hyperandrogenism and polycystic ovaries; Type D: Ovarian dysfunction and polycystic ovaries.

#### Fig 2 Basic Pillars for diagnosis of PCOS

In South Asian PCOS, the incidence of insulin resistance, hyperinsulinaemia and clomiphene resistance is higher when compared to Caucasian PCOS. Women with resistant PCOS are unable to lose weight and keep the weight off in the long term which requires a disciplined and sustained approach to the condition.

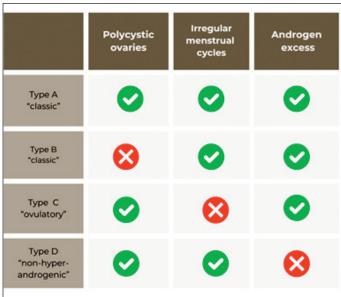


Fig 3 Modern Phenotypical Classification of PCOS

#### **Management strategies**

Managing PCOS requires a multipronged approach that addresses the various symptoms and health risks associated with the condition. The strategies based on scientific evidence that have helped countless sufferers manage PCOS are well known:

#### **Lifestyle modifications**

Maintaining a healthy weight through a balanced diet and regular exercise can improve insulin sensitivity and reduce the risk of developing type 2 diabetes, which is higher in women with PCOS. A low glycaemic index diet, rich in whole grains, fruits and vegetables, can also help regulate blood sugar levels.

#### **Pharmacotherapy**

In women not desirous of conception, combined oral contraceptive pills are commonly prescribed to regulate menstrual cycles and reduce symptoms such as acne and excessive hair growth. Insulin sensitisers such as metformin, inositols and berberine, can also improve insulin sensitivity, induce regular ovulation and help regulate menstrual cycles in some women with PCOS.

#### **Stress management**

Chronic stress with societal and peer pressures can exacerbate PCOS symptoms, so finding healthy ways to manage stress, such as through yoga, meditation or counselling can be beneficial. Having a regular bedtime routine, sleep hygiene, avoiding excessive social media and managing cortisol levels is an essential part of the weight management strategies.

#### **Fertility treatment**

The first line management of oligo- and anovulation includes weight management and ruling out associated conditions which may coexist such as hypothyroidism

#### Step 1: Irregular cycles + clinical hyperandrogenism

(exclude other causes)\* = diagnosis

#### Step 2: If no clinical hyperandrogenism

Test for biochemical hyperandrogenism (exclude other causes)\* = diagnosis

#### Step 3: If ONLY irregular cycles OR hyperandrogenism

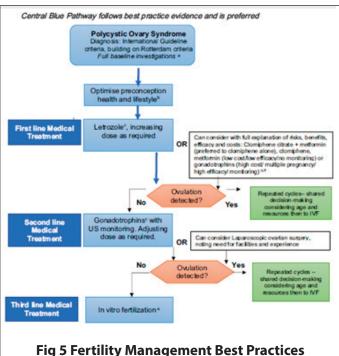
Adolescents ultrasound is not indicated = consider at risk of PCOS and reassess later Adults - request ultrasound for PCOM\*, if positive (exclude other causes)\* = diagnosis

\* Exclusion of other causes = TSH, prolactin, 17-OH progesterone, FSH or if clinically indicated exclude other causes (e.g. Cushing's Syndrome, adrenal tumours). For hypogonadotrophic hypogonadism, usually due to low body fat or intensive exercise, exclude clinically and with LH/ FSH. PCOM = polycystic ovarian morphology on ultrasound

#### Fig 4 Diagnostic algorithm

and hyperprolactinaemia. Even 5% weight loss can regularise the menstrual cycle and restore normal ovulatory rhythm.

Letrozole is the first-choice oral ovulation induction agent recommended by the ESHRE/ ASRM Guideline. Inositols are no longer considered experimental therapy as per the updated guideline. Letrozole with insulin sensitisers may show synergistic benefits. In women refractory to oral ovulogens, gonadotropins may be offered. Still, these are more expensive and good counselling with a clinician's expertise is essential as women with PCOS are more prone to the dreaded complication of ovarian hyperstimulation syndrome. Vitamin D is among the adjuvant therapies commonly prescribed in women with PCOS as they may be deficient in the same. Follicular fluid levels of Vitamin D are low, and this is associated with poor oocyte quality, lower fertilisation rates and clinical pregnancy rates in PCOS women undergoing assisted reproduction.



#### **Obstetric complications**

Women with PCOS who conceive may experience a greater incidence of complications in all four trimesters of pregnancy, including - but not limited to - first trimester miscarriage, gestational diabetes, hypertensive disorders of pregnancy, preterm labour, preterm prelabour rupture of membranes, macrosomia, fetal growth restriction, shoulder dystocia, operative delivery and postpartum issues. Close supervision and tertiary care with an experienced team is highly recommended in these women.

Identification of metabolic issues and their

correction prior to conception is of paramount importance as this will decrease the incidence of complications during pregnancy.

#### Monitoring and managing blood sugar levels

Women with PCOS are prone to developing Type 2 diabetes mellitus in the long run, and regular monitoring of blood sugar levels can help detect early signs of diabetes and prevent complications. In most cases, lifestyle modifications and insulin sensitisers may be able to manage blood sugar levels and postpone the onset of Type 2 diabetes.

#### Regular follow up

Regular visits to a healthcare provider can help monitor the condition and adjust treatment plans as needed. This is particularly important for women with obese PCOS and insulin resistance who are at an increased risk of developing type 2 diabetes, high blood pressure and cardiovascular disease. Education regarding the longterm consequences of PCOS and metabolic syndrome should be part and parcel of counselling regarding this condition.

#### Conclusions

In conclusion, managing PCOS requires a combination of lifestyle modifications, medications and regular follow-up with an expert team of clinicians. By following updated scientific evidence and working closely with healthcare professionals, women with PCOS can effectively manage their symptoms and reduce the risk of developing related health complications.

Understanding the long-term nature of the disease and seeking effective targeted strategies to ameliorate its harmful effects is of paramount importance in offering comprehensive multifaceted treatment for this difficult condition, which is exploding internationally with millions of sufferers worldwide.

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### QUIZ



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### Q1. Average age of natural menopause in Indian women is:

A. 47 years

B. 50 years

C. 52 years

D. 55 years

## Q2. Which hormone is most reliable for confirming menopause?

A. AMH

B. Estradiol

C. FSH

D. LH

## Q3. Which of the following is not a component of Menopause Rating Scale (MRS)?

A. Vasomotor symptoms

B. Psychological symptoms

C. Sexual function

D. Bone density

## Q4. First-line treatment for bothersome hot flushes in a 52-year-old healthy woman within 5 years of menopause?

A. Tibolone

B. Clonidine

C. Hormone Replacement Therapy (HRT)

D. SSRIs

## Q5. Which is the biggest risk of unopposed estrogen therapy in women with intact uterus?

A. Breast cancer

B. Endometrial hyperplasia/carcinoma

C. DVT

D. Stroke

## Q6. In premature ovarian insufficiency (POI), HRT is recommended until at least:

A. Age 40

B. Age 45

C. Age 50

D. Age 55

## Q7. Which non-hormonal drug has evidence-based efficacy for vasomotor symptoms?

A. Metformin

B. Gabapentin

C. Statins

D. Calcium

#### Q8. Osteoporosis prevention is best achieved by:

A. Vitamin D only

B. Calcium + exercise

C. Bisphosphonates in all women postmenopause

D. HRT in early postmenopause

## Q9. GSM (Genitourinary Syndrome of Menopause) includes all except:

A. Vaginal dryness

B. Dyspareunia

C. Recurrent UTIs

D. Urinary incontinence always present

#### Q10. Contraindication for HRT:

A. Early menopause at 42

B. Previous hysterectomy

C. History of breast cancer

D. Severe hot flushes

Answer 1: A. 47 years

Answer 2: C. FSH

Answer 3: D. Bone density

Answer 4: C. HRT

Answer 5: B. Endometrial hyperplasia / carcinoma

Answer 6: C. Age 50

Answer 7: B. Gabapentin

Answer 8: D. HRT in early postmenopause

Answer 9: D. Urinary incontinence always present

Answer 10: C. History of breast cancer