AFPI Karnataka Newsletter

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Case Presentation

PCOD and its varied management – case scenarios in general practice

We are happy to inform you that Spice route Karnataka participated in the monthly "Spice Route classroom" for young Physicians on 28 th July 2020 at 9 pm. Around 100 participants joined the session on Microsoft teams which included many from across the globe. The session was moderated by Dr. Swapna Bhaskar, HOD- Family Medicine, St. Philomena's Hospital Bangalore. Dr. Deepthi, Gynecologist from Aster Hospital, Bangalore gave the expert opinion. Dr. Smitha Alice, third year Family Medicine Resident from St. Philomena's did the case presentation. Dr. Jyothika, secretary Spice route Karnataka coordinated the session. Chief Guest, Dr. Kinly from Bhutan gave the introduction and spoke about her journey as a family physician and the current status of family medicine in her country. The session was encouraged with the esteemed presence of senior members of AFPI - Dr. B. C Rao Dr. Mohan Kubendra, Dr Resmi etc and many spice route members from across the globe.

Excerpts from the session:

Two cases focusing mainly on PCOD- one in a young unmarried woman with menorrhagia and the other in a married woman with infertility- were discussed.

Case 1

19-year-old female has come to OPD with complaints of irregular cycles and heavy bleeding for many days since past 1 year. Her age of menarche was 15 years. She had her periods for 15-25 days at an interval of 2-3 months. Her LMP was 20 days back with ongoing flow till date, changing 4- 5 pads per day with passage of clots. No weight gain/ loss in the past few months. No pain abdomen, breathing difficulty, or pedal edema. She has no significant past history of any medical illness.

Family history: Sister has similar complaints.

Personal history: Stressed for degree exams, no exercise, non-vegetarian diet.

On examination she was obese with BMI of 32. There was significant pallor and acanthosis with no signs of hypothyroidism and no hirsutism.

Investigations:

- Hb- 7.4 g/dl
- Peripheral smear: low MCHC
- TSH-2.1
- S. Iron Profile - suggestive of iron deficiency anemia
- USG Abdomen and pelvis showing multiple follicles in both the ovaries, with ovarian volume > 10cc - suggestive of PCOD.

Discussion following this case mainly focused on further workup for this patient, treatment goals, when to refer to the specialist and counseling regarding prognosis.

Further investigations in this patient should include S.Prolactin to rule out hyper prolactinemia.

Others-

- Fasting FSH, LH (Ratio of these usually raised in PCOD due to increase in LH)
- Estrogen on Day 2 of cycles
- Fasting insulin levels
- DHEA
- SHBG
- total and free testosterone
  will aid in the diagnosis of PCOS, but are not mandatory.

FBS, PPBS, HbA1c and lipid profile will help to rule out metabolic syndrome.

A family history of similar complaints makes other causes of hyperandrogenism like congenital adrenal hyperplasia very unlikely in this patient. Moreover tests related to sex hormones is not advisable if the patient has clinical evidence of hyperandrogenism with abnormal facial hair, acne, central obesity etc. These expensive modalities would be needed only if other differential diagnoses are thought of.

The treatment goals for this patient are –

a) Immediate – to stop her bleeding and correct anemia
b) To regularize her cycles and prevent menorrhagia in future

Management of this patient should focus on lifestyle modification which includes weight loss as the priority. She should be given a detailed description on dos and don’ts in diet and a targeted weight loss strategy with periodic motivation to attain it.

The following drugs were discussed as options for her treatment –

1. Tranexemic acid is the drug of choice for the immediate stoppage of bleeding.

2. Progesterone only pills (POPs) - Since PCOS is mainly a hyperestrogenic stage, progesterone only pills (Medroxy progesterone) is the second choice depending on her endometrial thickness. POPs are advised in case of increased endometrial thickness on USG.

3. Combined Oral contraceptive pills (OCP)- can be given for 3 months as a last trial after ruling out the absolute and relative contraindications of OCP like migraine, major thromboembolic states, liver disorders. All treating physicians should be aware of the side effects of OCPs when patient comes for follow up including the dreaded cerebral venous thrombosis. Any headache or symptoms related to raised ICT should prompt an immediate MRI Brain or CT with venogram.

4. Metformin – is useful since she is obese and if fasting insulin is high. This should not replace the importance of weight loss since long term compliance may not be feasible.

5. Antiandrogens like spironolactone – can be started if patient has specific symptoms and signs and should not be used as first line treatment for PCOS.

Long term follow up - RCOG recommends monitoring women with PCOS for metabolic syndrome from the age of 30 regularly with investigations like fbs,ppbs,HbA1c, OGTT, lipid profile, BP monitoring.

Case 2

29-year-old female, married for 4 years, came with her husband to the OPD with complains of pain abdomen during first day of her menstrual cycles. She has been trying to conceive since marriage and extremely worried about not being able to. Her menstrual cycles were irregular. She attained her menarche at 13 years, cycles were 5-6/35-40 days. She gave the history of mild weight gain – about 2 -3 kg in past 6 months. No past history of any significant illness.

Personal history: Eats healthy, regular exercise.

Family history: Father-DM, Mother-Hypothyroid.

There is no history of contraception use so far and they have not taken any treatment for infertility. She wants to discuss her reports with you and take advise on further course of action.

Husband’s semen analysis- normal

Her investigations:

- Hb-13.9
- TSH-1.8
- USG Abdomen and pelvis showing multiple follicles in both the ovaries, with ovarian volume > 10cc. Uterus- normal, no myomas seen-suggestive of PCOD
- LH/FSH ratio 3:1

Discussion of this case also dwelled on further workup for this patient, treatment goals, when to refer to the specialist and counseling regarding treatment of infertility. .

Further investigations for her will include prolactin levels, AMH to know her ovarian reserve, HSG to see whether her tubes are patent.

Serial ultrasounds – are useful in this patient to understand her ovulation pattern. USG on Day 2 of menstrual cycle will help to rule out corpus luteal cyst and to know about the endometrial thickness. Further scans- USG from Day 9(for those with shorter cycles) or Day 11(for those with longer cycles) will enlighten on occurance of spontaneous ovulation or anovulation.

Vitamin D levels- this vitamin deficiency is known to be a causative factor for infertility and hence a fasting level check and correction of deficiency is mandatory for all patients with infertility.

Steps of management-

1. Lifestyle modification - is the mainstay in management of any patient with PCOD with stress on weight loss, healthy diet and regular exercise.
2. Counseling regarding stress free life and timed intercourse should be given by the GP.
3. Folic acid and Vitamin B12 supplements can be added.
4. Ovulation induction drugs like Clomiphene citrate, Letrozole or Tamoxifen can be given if she is not ovulating. Serial ultrasounds and measurement of endometrial thickness will aid in decision making. These drugs can be given up to 3-6 months by the treating GP.
5. Injection HCG 5000 units s/c can be given for follicular rupture once the follicle is 18-20 mm in size. It takes 36 hours for the follicle to rupture once the injection is given and hence timing the dose according to planned intercourse/ IUI is mandatory. When to refer to a specialist – failure to conceive in spite of 3-4 cycles of treatment should prompt the GP to refer to a specialist for further management after counseling the patient and family.

Polycystic ovary syndrome (PCOS) is one of the most common hormonal disorders among women of reproductive age, especially in those presenting with infertility. The exact prevalence of PCOS is not known as the syndrome is not defined precisely,but is highly variable ranging from 2.2% to 26% globally. There are very few studies conducted in India, but some done in South India and Maharashtra showed prevalence of PCOS (by Rotterdam's criteria) as 9.13% and 22.5% (10.7% by Androgen Excess Society criteria) respectively.PCOS was first reported by Stein and Leventhal in 1935, described as symptoms complex with amenorrhea, hirsutism, and enlarged ovaries with multiple

cysts. Polycystic means "many cysts," and PCOS often causes clusters of small, pearl-sized cysts in the ovaries. The cysts are fluid-filled and contain immature eggs. Women with PCOS produce slightly higher amounts of male hormones known as androgens, which contribute to some of the symptoms of the condition.

Clinical features:

Infertility - PCOS is the most common cause of female infertility. Conception may take longer than in other women, or women with PCOS may have fewer children than they had planned. In addition, the rate of miscarriage is also higher in affected women. This being the most common presentation in women anxious to conceive.

Infrequent, absent, and/or irregular menstrual periods- The menstrual irregularities in PCOS usually present after menarche being the most common presentation in adolescent age group.

Besides the above, Hirsutism -increased hair growth on the face, chest, back, thumbs, or toes – Scoring by Ferriman Gallwey score, acne, oily skin, or dandruff, weight gain or obesity, usually with extra weight around the waist, male-pattern baldness or thinning hair, Skin tags(excess flaps of skin in the armpits or neck area), pelvic pain, anxiety or depression and acanthosis nigricans are seen.

Longterm consequences of PCOS: Metabolic syndrome, Coronary artery disease, Endometrial cancer, Breast cancer, Complications in pregnancy, Depression and anxiety.

The diagnosis of PCOD is constantly changing and currently the criteria requires atleast 2 of the following:

- irregular periods
- Symptoms and signs of hyperandrogenism.
- scans showing you have polycystic ovaries

Treatment of PCOS mainly focuses on lifestyle modification- diet , exercises and weight loss. The choice of drugs is customized based on the need of the patient and most of the drugs are discussed above.

We thank Dr Deepthi for giving us valuable insights during the webinar.