

Integrative Management of Polycystic Ovarian Syndrome: A Case Report on the Effectiveness of Acupuncture and Ozone Therapy

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ABSTRACT

Polycystic ovary syndrome (PCOS), a prevalent endocrine disorder among women of reproductive age, is a leading cause of anovulatory infertility and is often associated with insulin resistance and metabolic dysfunction. Traditional treatments focus on pharmacotherapy and lifestyle modifications, but emerging integrative approaches offer promising results. A 25-year-old female presenting with irregular menstruation and weight gain, diagnosed with PCOS and co-morbid hypothyroidism, underwent an integrative treatment plan involving acupuncture, ozone therapy, and lifestyle changes. Following 30 sessions of acupuncture and 15 sessions of ozone therapy, significant improvements were observed, including menstrual cycle regularity and weight loss. This case highlights the effectiveness of a holistic approach in managing PCOS and aligns with broader research emphasizing the need for multidisciplinary, individualized treatment strategies to enhance patient outcomes and overall well-being.

Keywords: Polycystic Ovary Syndrome, Acupuncture, Ozone Therapy, Lifestyle Modification, Holistic Therapy.

INTRODUCTION

Polycystic ovary syndrome (PCOS) is a complex androgen-excess disorder characterized by varying degrees of reproductive and metabolic dysfunction, often associated with insulin resistance and metabolic syndrome [1]. It is one of the most prevalent endocrinopathies among women of reproductive age globally [2]. The diagnosis of PCOS is typically based on three interrelated symptoms: hyperandrogenism, ovulatory dysfunction, and polycystic ovarian morphology (PCOM) [3]. The etiology of PCOS can be linked to genetic predisposition, an unhealthy lifestyle, or a combination of both [4,5]. Globally, the prevalence of PCOS in reproductive-aged women varies widely, estimated between 5% and 18% [6]. In developed countries, prevalence

rates range from 6% to 10% [7]. In Bangladesh, a significant proportion of women are affected, with studies reporting prevalence rates of 31.7% and 31.25%, as observed by Fatima et al. (2015) and Mahjabeen et al. (2018), respectively [8-10].

Non-pharmacologic therapies are integral to the management of PCOS, particularly for patients who are overweight, obese or have coexisting metabolic conditions. Lifestyle modifications, including diet and exercise, play a crucial role in mitigating symptoms [11]. Moreover, alternative therapies such as acupuncture, ozone therapy, and traditional Chinese medicine are emerging as effective approaches for addressing hormonal imbalances and enhancing metabolic outcomes. This case report aimed to evaluate the effectiveness of an integrative approach combining acupuncture, ozone therapy, and lifestyle modifications in the management of PCOS.

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CASE PRESENTATION

A 25-year-old female office worker from a middle-class background presented with complaints of irregular menstruation and weight gain. Following clinical evaluation, she was diagnosed with polycystic ovarian syndrome (PCOS) and concurrent hypothyroidism. There was no notable family history of similar conditions.

Initial assessments revealed significant menstrual irregularities and challenges with weight management, both characteristic features of PCOS. The treatment regimen combined abdominal acupuncture, ozone therapy, traditional Chinese medicine modalities, and a structured healthy lifestyle program. This integrative approach was designed to address hormonal imbalances and metabolic dysfunctions associated with PCOS while fostering sustainable behavioral changes.

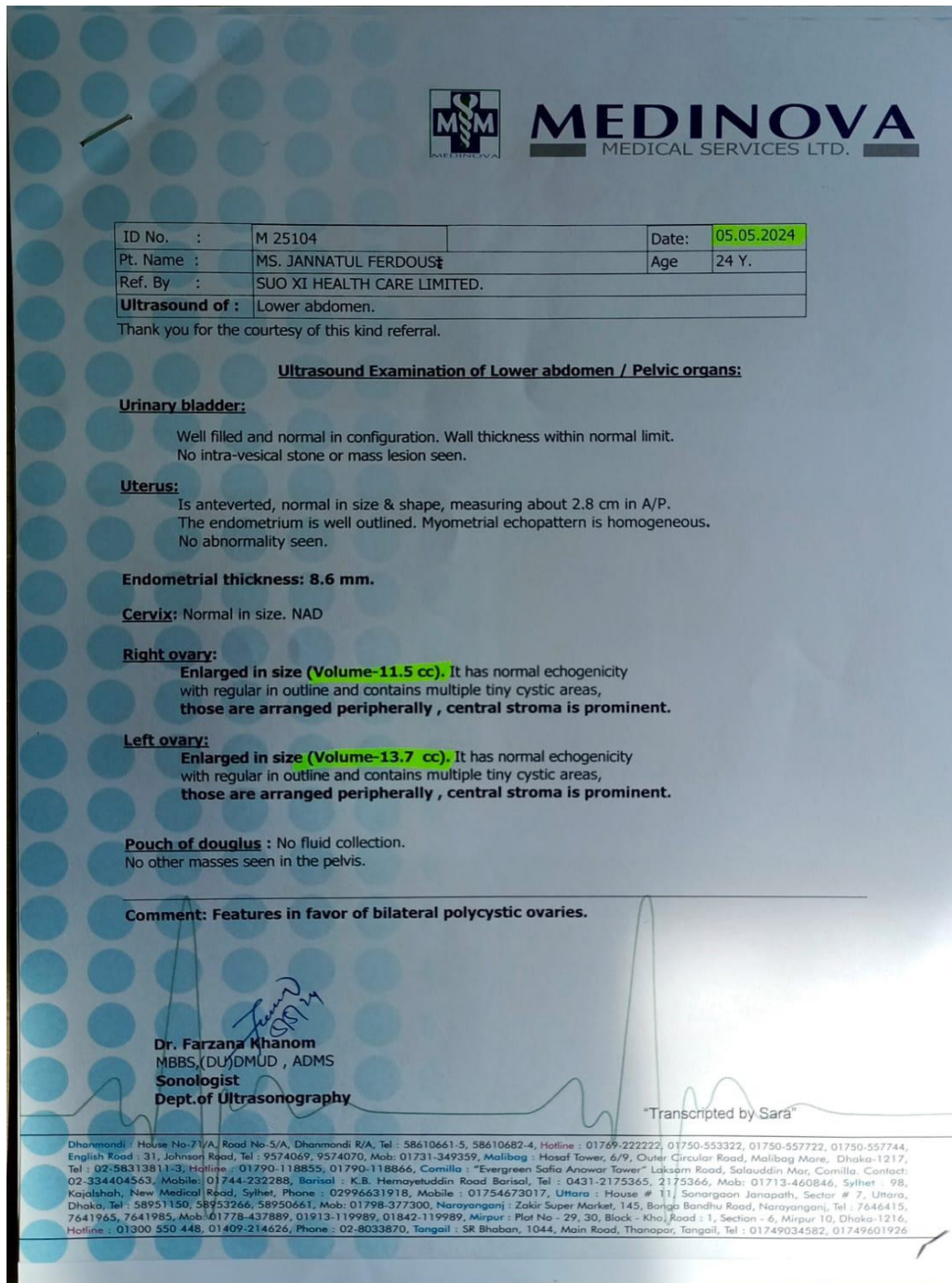


Figure 1: Diagnosis Before Treatment

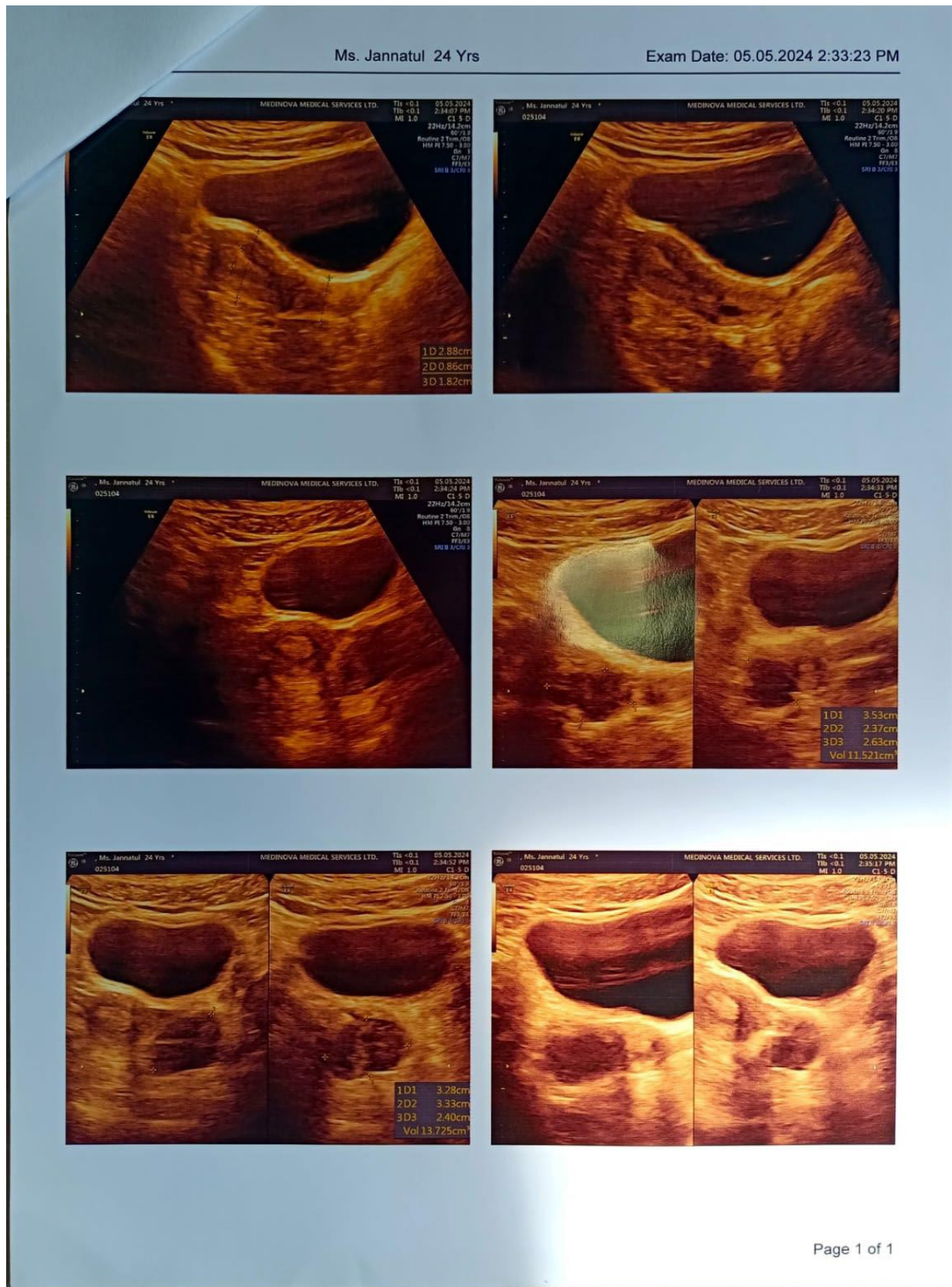



Figure 2: USG Image Before Treatment



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ID No. :	M -48794	Date:	29.08.2024
Pt. Name :	JANNATUL FERDOUS MIM	Age	25 Y.
Ref. By :	SUO XI HEALTH CARE LIMITED.		
Ultrasound of :	Lower abdomen.		

Thank you for the courtesy of this kind referral.

Ultrasound Examination of Lower abdomen / Pelvic organs:

Urinary bladder:
Well filled and normal in configuration. Wall thickness within normal limit.
No intra-vesical stone or mass lesion seen.

Uterus:
Is anteverted, normal in size & shape, measuring about 2.4 cm in A/P.
The endometrium is well outlined. Myometrial echopattern is homogeneous.
No abnormality seen.

Endometrial thickness: 6.7 mm.

Cervix: Normal in size. NAD

Right ovary:
Normal in size (volume – 8.0 cc). It has normal echogenicity with regular in outline **but contain multiple tiny follicles those are arranged periphery.**

Left ovary:
Normal in size (volume- 5.3 cc) . It has normal echogenicity with regular in outline **but contain multiple tiny follicles those are arranged periphery.** and contains multiple tiny cystic areas.

Pouch of douglus : No fluid collection.

Comment: Features in favor of bilateral polycystic ovaries.

Amv, 29-08-2024

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Figure 3: Diagnosis After Treatment

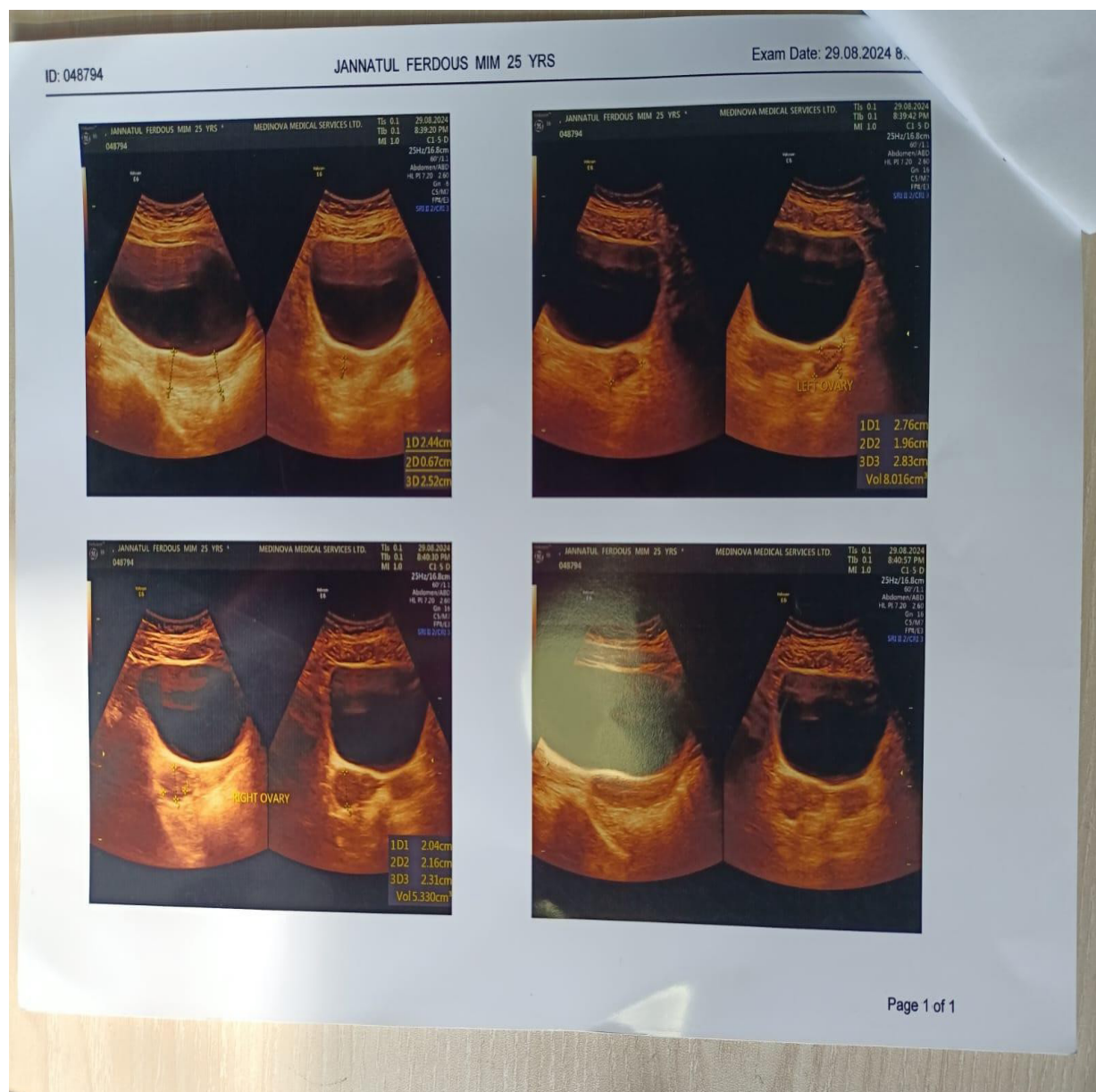


Figure 4: USG Image After Treatment

Pre-treatment ultra-sonographic evaluation (Figure 2) demonstrated an increased endometrial thickness of 8.6 mm, with bilateral ovarian enlargement. The right ovary had a volume of 11.5 cc, while the left measured 13.7 cc. After undergoing 30 sessions of acupuncture and 15 sessions of ozone therapy, notable clinical improvements were observed. The patient reported a more regular menstrual cycle and substantial weight reduction. Post-treatment ultrasonography (Figure 4) revealed normalization of the endometrial thickness, which decreased to 6.7 mm, and significant reductions in ovarian volumes, with the right ovary measuring 8.0 cc and the left 5.3 cc. Subjective evaluations indicated enhanced well-being and alleviation of PCOS-related symptoms.

DISCUSSION

Polycystic ovary syndrome (PCOS) is a prevalent endocrine disorder affecting women of reproductive age globally and is a leading cause of anovulatory infertility [12]. This case study highlights a young female job holder presenting with irregular menstruation and weight gain, later diagnosed with PCOS and coexisting hypothyroidism. Her treatment plan comprised abdominal acupuncture, ozone therapy, traditional Chinese therapies, and adherence to a structured healthy lifestyle program. Remarkable improvements were observed following 30 sessions of acupuncture and 15 sessions of ozone therapy, including a more regular menstrual cycle and significant weight loss.

Patil et al. (2022) demonstrated the effectiveness of a multidisciplinary approach in managing PCOS, targeting metabolic syndrome and associated psychological challenges, with substantial improvement in patient outcomes [13]. Similarly, a pilot study evaluating a holistic management program for PCOS highlighted the benefits of combining individualized dietary interventions with alternative therapies, reporting enhanced weight management and menstrual regularity [14]. These findings are consistent with broader research emphasizing the critical role of lifestyle modifications, such as diet and exercise, in addressing insulin resistance and hormonal imbalances in PCOS [15]. Our case findings reinforce the potential advantages of integrating acupuncture and ozone therapy within a comprehensive treatment framework for PCOS. These results resonate with existing literature advocating for holistic, multidisciplinary approaches, emphasizing their value in improving clinical outcomes and enhancing the overall quality of life for women with PCOS [13-15].

Limitations of the study

The primary limitations of this case report include its single-patient focus and the absence of a control group to isolate the effects of acupuncture and ozone therapy. The short follow-up period restricts the evaluation of long-term efficacy and the sustainability of the observed improvements.

CONCLUSION AND RECOMMENDATIONS

This case report demonstrates the effectiveness of an integrative approach combining acupuncture, ozone therapy, and lifestyle modifications in managing polycystic ovary syndrome (PCOS). The patient showed notable improvements in menstrual cycle regularity, weight reduction, and overall well-being. These findings highlight the potential of holistic treatment strategies to address the multifaceted impacts of PCOS, including hormonal imbalances and metabolic dysfunctions. Further studies are needed to validate these approaches and establish evidence-based guidelines for integrating alternative therapies into standard PCOS management protocols.

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