# Society of Endometriosis and Uterine Disorders

## CASE SERIES: CLINICAL OUTCOMES OF ADENOMYOSIS THERAPY USING ULTRASOUND-GUIDED HIGH INTENSITY FOCUSED ULTRASOUND (HIFU) IN NIGERIA

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#### Introduction

The clinical outcomes and treatment efficiencies of ultrasound guided high intensity focused ultrasound (HIFU) for adenomyosis has been evaluated in many settings, but not in West Africa. HIFU is an emerging non-invasive treatment option in the African continent that is mostly used for the treatment of uterine fibroids and has been found to have incremental benefits over the standard of care, which in most cases are invasive surgical options. Reported benefits of HIFU in comparison to other invasive or minimally invasive treatment options include improved symptoms, absence of bleeding, shorter operative time, shorter recovery time, and even benefits in both short and long-term quality-of-life. The role of HIFU in patients with adenomyosis is not documented in Nigeria.

**Objective:** To evaluate the clinical treatment outcomes of ultrasound-guided HIFU on adenomyosis in Nigeria

#### **Methods**

This is a retrospective study involving 35 women that had undergone HIFU treatment for adenomyosis between July 2021 and December 2022 at Fibroid Care Centre @ Nordica, Nigeria – the first centre in West Africa to offer HIFU treatment. Nine (9) of these patients were classified as having focal adenomyosis, while 26 had diffuse adenomyosis. Following a standardized protocol, all patients had pre-treatment magnetic resonance imaging (MRI) that was repeated post-treatment to evaluate treatment effectiveness. A Quality of life (QoL) assessment on clinical symptoms; severe dysmenorrhoea and heavy menstrual bleeding (HMB) severity using the Uterine Fibroid Symptom and Quality of Life (UFS-QoL) questionnaire was obtained pre-treatment and then at 3-months, 6months, and 9-months and 12-months post-treatment. Unpaired t-tests were used to determine significant differences between pre-treatment and post-treatment symptom severity scores.

### Results

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All patients (35) completed the ultrasound guided HIFU in one session. Mean age of the patients was  $40.14 \pm 5.53$  years and most (74.3%) were nulliparous. There were loss to- and incomplete follow ups.

Figure 1: Common clinical presentations of the patients (%). n = 35

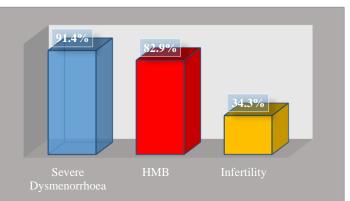
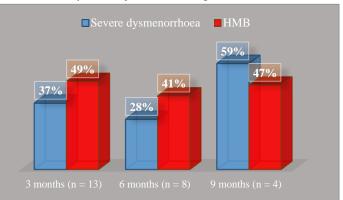


Figure 2: Percentage reduction in symptoms (severe dysmenorrhoea and HMB) severity scores after ultrasound guided-HIFU



(p-values; < 0.0001, p = 0.007, p = 0.01 at 3months, 6months and 9months respectively for severe dysmenorrhoea and p-values; < 0.002, p = 0.26, p = 0.02 at 3months, 6months and 9months respectively for HMB)

#### Conclusion

The management of adenomyosis remains challenging in the African continent. Findings from this study show that ultrasound guided HIFU is effective in alleviating major clinical symptoms of adenomyosis in Nigeria.

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#### Keywords: Adenomyosis; ultrasound-guided high intensity focused ultrasound (HIFU), Nigeria

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