COMMENTARY

Managing Endometriosis in sub-Saharan Africa: Emerging Concepts and New Techniques

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Endometriosis is a gynaecological disorder that is characterized by the growth of endometrial tissue outside the uterine cavity[1]. In developed countries, it occurs in up to 20% of women of reproductive age and is a common cause of pelvic pain and infertility[1,2]. In sub-Saharan Africa, epidemiological data on the prevalence of endometriosis among African indigenous women are meagre[3]. In some of the few published studies, endometriosis constituted the third most common finding at laparoscopies and was reported in 15.7% of laparoscopies performed for infertility assessment[4]. In South Africa, Wiswedel et al (1989) reported a prevalence of 2% among African indigenous women presenting to an infertility clinic compared to a prevalence of 4-6% among South Africans of mixed and white race[5]. In Nigeria, a prevalence of 4-8% has been reported among women also presenting for assisted reproductive programmes[4,6,7.]

The low prevalence of endometriosis reported among indigenous African women has been attributed to a different culture and life styles in particular, early age at first pregnancy, short inter pregnancy intervals with large size families, taboos around menstruation and pain, increased risk of pelvic inflammatory disease and blocked fallopian tube[8-10]. These factors contribute to delays in expression of symptoms and limit the cumulative number of menstrual cycles with retrograde menstruation that is positively associated with risk of developing endometriosis[8-10]. Others have attributed the lower prevalence of endometriosis among indigenous African women to the low awareness of the disease in sub-Saharan Africa, the poor access to diagnostic and therapeutic facilities and the limited training available for the management of endometriosis in the region[11,12.]

In Nigeria, recent efforts by nongovernmental organizations (NGOs)[13] to collaborate with global movements that seek to improve awareness of endometriosis on a designated World Endometriosis Day represents a significant paradigm shift in Nigeria's approach to this debilitating disease. The involvement of NGOs in partnership with global movements for endometriosis provides an opportunity for Nigeria to encourage research interests in endometriosis and develop enduring evidence based strategies for managing women suffering from endometriosis. The foundations for these strategies should be based on the emerging new concepts and diagnostic modalities currently available for diagnosing and treating endometriosis in developed countries.

For example, transvaginal ultrasound (TVS) is now considered a first line diagnostic tool of choice for imaging the pelvis in the preoperative assessment of women planning laparoscopy for surgical treatment of endometriosis[14,15]. Compared to other imaging modalities, the general availability of ultrasound, its low cost, the absence of harmful radiation and patient acceptability are significant added advantages for its potential role in the management of endometriosis in sub-Saharan Africa[15]. Indeed, knowledge around the performance of TVS in the preoperative diagnosis of ovarian and extra ovarian phenotypes of endometriosis and their

markers of local invasiveness (i. e Pouch of Douglas obliteration and ovarian immobility) has evolved in the last decade with evidence now supporting a role for TVS in the diagnosis of various phenotypes of endometriosis[16-23].

More recently, Menakaya et al described a systematic approach to the evaluation of the pelvis in women with suspected endometriosis using a five domain TVS based approach[24]. The five domain TVS based approach provides a consistent, reproducible and systematic way to evaluate the pelvis in women with suspected endometriosis and has the ability to objectively stratify competency in the expertise required for performing a tertiary level imaging of the pelvis in women with suspected endometriosis. In addition, its role as a tool for triaging women with higher stage endometriosis to the most appropriate expertise for optimal surgical treatment has been described[16]. In Nigeria, the five - domain TVS based approach can be used to develop and adapt training modules for the next generation of sonographers to improve the assessment of women with suspected endometriosis using a readily available cost effective imaging modality.

But developing ultrasound programs that improve the diagnosis and triage of women with suspected endometriosis is not enough. Efforts should also be directed towards establishing regional centers of excellence for managing higher stage endometriosis in line with recent recommendations of the World Endometriosis Society[25]. Such centers of excellence should have proficiencies in minimal invasive surgery especially as laparoscopy is the preferred method for the treatment of endometriosis compared to laparotomy[26,27]. However, expertise in laparoscopy demands specific training and acquisition of particular surgical skill sets[28,29]. Fortunately, many public hospitals in Nigeria are slowly rising to the challenge of minimal access surgery as an increasing number of hospitals modernize their facilities[30]. There is also a growing interest among the surgical communities and academic institutions in Nigeria to develop laparoscopic programs for fellows and trainees[31]. Indeed, various models of collaboration in capacity building programs between public and private institutions in developing countries and laparoscopic surgeons/laparoscopic surgical units in developed countries have been developed to address this interest[32].

With this introduction of minimal access surgery into the health care systems, an opportunity also presents for Nigeria to develop and streamline cost effective and sustainable strategies that will build the capacity of local gynecologists for the laparoscopic treatment of endometriosis. Among other things, such strategies must include an enabling environment for partnerships between the public and private health sectors to thrive, establishing regional centers of excellence with comprehensive training curricular for endometriosis ultrasound and laparoscopy and encouraging the involvement and integration of highly skilled laparoscopic gynecologists of Nigerian descent working in developed countries. Indeed, lessons from the growth of the Indian subcontinent as a medical tourist destination must be learnt and adapted to the Nigeria environment to encourage research on endometriosis and improve service delivery that will ultimately result in an improved quality of life for women with endometriosis.

The first ever Sub Saharan African scientific conference on endometriosis in Kampala Uganda in 2006 highlighted the need to develop integrative and multidisciplinary endometriosis programs in Sub Saharan African that will raise awareness of the disease, improve patient education and initiate research that will address the gaps in the knowledge of endometriosis in the region[9]. Establishing such programmes is especially important because with the current wave of globalization, Indigenous African women are experiencing significant changes in lifestyle, socio economic wellbeing and career prospects; marrying later and having fewer children. Such lifestyle changes expose them to long durations of uninterrupted menstrual flow with retrograde menstruation[33]. These factors are considered to be major risk factors for endometriosis[34].

Although significant steps have been taken towards actualizing the goals highlighted at the Kampala scientific conference; more needs to be done. In particular, research should be aimed at understanding the prevalence of endometriosis among African indigenous women[3]. This is central to appropriate planning and management of endometriosis in

Sub Saharan Africa[3]. In addition, integrating the emerging concepts and new techniques for the diagnosis and management of endometriosis into programs developed and adapted to the sub Saharan African environment with involvement of patient groups and supported by African developmental partners will contribute to the evolution of a high quail ty evidence based approach to endometriosis management in sub Saharan Africa.

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