

Perspective Article

Early Diagnosis of Endometriosis – Quo Vadis?

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Chettinad Health City Medical Journal 2015; 4(2): 68 - 69

Introduction

Screening or early diagnosis of a disease refers to early identification of disease conditions for which early and timely interventions can lead to the elimination or reduction of associated mortality, morbidity and disabilities. In this perspective article, we have tried to focus on the futility of early diagnosis of endometriosis, a common gynecological disorder with many complexities. Much attention, time and efforts are spent in diagnosing this condition early with a near impossible goal of cure or amelioration.

Endometriosis is an enigma. It is a disease of unknown etiology, undetermined pathophysiology, unpredictable clinical course and unproven therapies. Endometriosis is an age related, estrogen dependent condition, which is rare in the prepubertal, and post menopausal age group. Though mortality is rare, morbidity is related not only to the condition, but also to the treatment - be it medical or surgical.

Endometriosis is known since long time as a disease affecting women of reproductive age but no one exactly knows whether it is a neoplastic condition or degenerative lesion or inflammatory disorder or immunological condition¹. The manifestations match with all of the above. As it relates to age and duration of infertility, doubt exists as to whether it could be a physiological variant².

For early screening and prevention of morbidities in a disease, an in depth knowledge of pathophysiology of the disease is essential and this is lacking in endometriosis. The symptoms (especially dysmenorrhea) and the disease severity do not seem to correlate³ here making the whole idea of early diagnosis inappropriate. If we are talking about preventing obstructive symptoms like ureteric involvement, the incidence is so rare to the tune of 0.7-3%⁴, the early diagnosis may end in treating more women than required. If the focus is on treating infertility, we have to accept the fact that the causal relationship between endometriosis and infertility is not clearly established yet⁵.

Among the available tools for diagnosing endometriosis, Laparoscopic visualization of lesions is considered as Gold standard⁶. It is also evident that the laparoscopically visible lesions may not actually be the active lesions contributing to the symptoms⁷. On the contrary, a normal looking pelvis may not be normal, as occult microscopic lesions are not detectable at laparoscopy and these may be the cause for persistence or recurrence of pain⁸. Histopathological correlation with laparoscopic imaging is often low⁹. Based on the above observations, subjecting adolescents to an invasive

procedure like laparoscopy for early diagnosis may seem infructuous¹⁰.

Possibilities of using noninvasive accurate markers like Annexin v, VEGF, CA-125, Sicam-1/or Glycodelin, Tropomyosin-3, Stomatin like protein-2, Tropomodulin-3 for early diagnosis are being seriously explored all over the world¹¹. Systematic studies have shown that non-invasive biomarkers have no role in the diagnosis of endometriosis¹². It seems to be the research target for primary bodies like European Society of Human Reproduction and Embryology (ESHRE)¹³.

As these are primarily inflammatory markers common to many conditions, the sensitivity and specificity are only moderate increasing the false positive rate in diagnosing endometriosis¹³.

The above facts confirm that endometriosis remains an enigma till date. It is not clear how to diagnose it, whether diagnosing early could make a change in disease progression or morbidities involved. Even in established diagnosis, the treatment cannot promise any cure or amelioration. Except in situations like bowel, bladder or ureteric involvement, medical or surgical treatment has no clear focus and benefits to patients.

Early diagnosis without clear cut treatment strategy would only cause unnecessary anxiety in the minds of many women and their families. Unless research identifies effective ways to halt the course of endometriosis, there seems to be no justification for early diagnosis of endometriosis nor there need be any concern, as of now, about early endometriosis.

Acknowledgement: Our heartfelt gratitude to Dr. Kanchana Devi - Assistant professor, Department of Reproductive Medicine, Chettinad Super Speciality Hospital. – For helping in revising the manuscript.

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