

КРАТКИЕ СООБЩЕНИЯ

M. Al-Jefout, G. Dezarnaulds, M. Cooper, N. Tokushige, G.M. Luscombe, R. Markham, I.S. Fraser

DIAGNOSIS OF ENDOMETRIOSIS BY DETECTION OF NERVE FIBRES IN AN ENDOMETRIAL BIOPSY: A DOUBLE BLIND STUDY

Mu'tah Medical Faculty, Mu'tah University, Karak, Jordan

In this article the authors have shown the results of nerve fibres detection in endometrial biopsy as a new method of endometriosis diagnosis with a diagnostic reliability closed to the laparoscopic assess.

Key words: endometriosis, endometrial biopsy, nerve fibres

BACKGROUND

Diagnosis of endometriosis currently requires a laparoscopy and this need probably contributes to the considerable average delay in diagnosis. We have reported the unique presence of nerve fibres in the functional layer of endometrium in women with endometriosis, which could be used as a diagnostic test. To assess efficacy of nerve fibre detection in endometrial biopsy for making a diagnosis of endometriosis in a double-blind comparison with expert diagnostic laparoscopy.

METHODS

Endometrial biopsies, with immunohistochemical nerve fibre detection, taken from 99 consecutive women presenting with pelvic pain and/or infertility undergoing diagnostic laparoscopy by experienced gynaecological laparoscopists, were compared with surgical diagnosis. This study was registered with the Australian Clinical Trials Registry (ACTR) 00082242 (registered: 12/12/2007). The study was approved by the Ethics Review Committee (RPAH Zone) of the Sydney South West Area Health Service [Protocol number X05-0345] and The University of Sydney Human Research Ethics Committee [Ref. No. 10761] and all women gave their informed consent for participation.

RESULTS

In women with laparoscopic diagnosis of endometriosis ($n = 64$) the mean nerve fibre density in endometrial biopsy was 2.7 nerve fibres per mm^2 (± 3.5 SD). Only one woman with endometriosis had no detectable endometrial nerve fibres. Six women (out of 35) had endometrial nerve fibres but no active endometriosis seen at laparoscopy. The specificity and sensitivity were 82 % and 98 % respectively, positive predictive value was 86% and negative predictive value was 98%. Nerve fibre density did not differ across different menstrual cycle phases.

CONCLUSIONS

Endometrial biopsy, with detection of nerve fibres, provided a reliability of diagnosis of endometriosis which is close to the accuracy of laparoscopic assessment by experienced gynaecological laparoscopists.

Address

Moamar Al-Jefout – MD, JBO&G, MMed (HR&HG), Ph.D. Assistant Professor in Reproductive Medicine, The Department of Obstetrics & Gynaecology, Mu'tah Medical Faculty, Mu'tah University, Karak, Jordan (e-mail: drmoamar@yahoo.co.uk).