

CHANGES IN STRIPS OF RECTUS SHEATH DURING PREGNANCY FOLLOWING UTERO-CERVICOPEXY OPERATION

(A Case Report)

by

KALYANI MUKHERJEE

and

ASHOK K. GHOSH

SUMMARY

The muscle tissue present in the strips of Rectus Sheath attached to the uterine cornu might have its origin in the limited new muscle cells formed during pregnancy.

Introduction

Uterine Prolapse in young women desirous of having children is difficult to treat, more so if the patient be nulliparous. Some of these patients have elongated cervix which generally calls for amputation with all its reproductive hazards (Jeffcoate, 1975; Browne, 1979; Dewhurst, 1981). Purandare (1966) used a strip of rectus sheath on each side to pull up the cervix in these patients. To minimise the recurrence of prolapse and to have a more anatomical restoration, an extra fascial sheath is attached on each side of uterus near its round ligament attachment and named utero-cervicopexy (Goswami *et al*, 1980; Ghosh *et al*, 1981). During follow up of these cases it was observed during L.S.C.S. that the fascial strips were greatly hypertrophied. This hypertrophy may be functional to 'hold' or 'align' the much bigger

pregnant uterus. Is this hypertrophy pure hormonal or some structural change has taken place? For this reason biopsy of the hypertrophied strips were taken during Caesarean Section, which demonstrated muscle tissue.

Case History

Mrs. J.G., 20 years primigravida, E.D.C. 6-7-82 was admitted on 18-6-82 at Eden Hospital Antenatal Ward. Utero-cervicopexy was done on her on January 1980 at Eden Hospital when she was single.

During this pregnancy she had 8 antenatal visits starting from 20th week of gestation. Antenatal period was uneventful. Elective L.S.C.S. was done on 5-7-82 delivering a 3.100 Kg. female baby. The strips of rectus sheath attached to the uterus near its round ligament attachment were hypertrophied and biopsy was taken from both the strips.

Post Operative Period was uneventful and she was discharged on 14-7-82.

Histopathological Report

The sections were stained by Haematoxylin and Eosin (Fig. 1), and Van Gieson's Stain which confirmed the presence of muscle tissue

From: Reader, Dept. Obstetrics and Gynaecology, Eden Hospital, Medical College, Calcutta. Accepted for publication on 3-1-84.

(Yellow Stain) against Brown stained Collagen tissue.

Discussion

Source of origin of round ligament and uterus are different; only due to developmental pathways they came near each other which ultimately leads to its attachment to the Uterine Corpus.

Some of the smooth muscles of round ligament are found to be continuous with those of uterine wall (Williams, 1980). Their source of origin being different 'these' continuous muscle cells must have invaded either from uterine wall to round ligament or vice versa.

During pregnancy increase in uterine bulk is predominantly due to marked hypertrophy of existing muscle cells, whereas the appearance of new muscle cells is limited (Williams, 1980).

It appears that some of these limited muscle cells have invaded the strips of rectus sheath attached to uterus during pregnancy.

References

1. Browne, J. C. and Divon, G.: Browne's Antenatal Care Ed. 11, The English Language Book Society and Churchill Livingstone, Edinburgh (1979) P. 110.
2. Dewhurst, Sir John, (1981): Integrated Obstetrics and Gynaecology For Post Graduates, Ed. 3, Blackwell Scientific Publications, Oxford, London, Edinburgh, Boston, Melbourne, P. 645.
3. Ghosh, K., Goswami, B. K., Mukherjee, K. and Sarkar, A. K.: Utero-Cervicopexy In Genital Prolapse Of Young Women, Abstracts, XXV All India Obstetrics and Gynaecological Congress, 1981, Calcutta, P. 20.
4. Goswami, B. K., Lahiri, T. K., Sinha Chowdhury, S. and Mukherjee, K.: Cervicopexy by Purandare's Method and a Modified Technique, J. Obstet. Gynec. India, 30: 953, 1980.
5. Jeffcoate, Sir Norman, (1975), Principles of Gynaecology, Ed. 4, Butterworth & Co. Ltd., London, P. 266.
6. Purandare, V. N., Patil, K. and Arya, R. (1966): Quoted by Reference 4.
7. Williams Obstetrics (1980), Ed. 16, Appleton-Century-Crofts, New York, P. 27, 221.

See Fig. on Art Paper III