Incidental Cesarean Myomectomy

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Incidental Cesarean Myometomy has been a controversial issue and most of the opinion leaders are unfavarable because of the possibility of bleeding, uterine subinvolution, and pathology misinterpretation. We collected 16 study cases and 49 control cases in Chung-Shan Medical and Dental College Hospital from August 1, 1989 to July 31, 1990 to analysis the concerned outcomes. The only difference between them was the operation time needed for the study group is longer than the control group. The other variances showed no significant difference. The result might offer an alternative choice in decision making.

Key words: Myomectomy, Cesarean Section

Myomectomy during Cesarean Section has been a controversial issue along the development of modern Obstetrics. The school doesn't favor this procedure suggested that the procedure should be limited to those tumors with discrete pedicles that can be easily clamped and ligated. Otherwise, myomas should be dissected from the uterus, during pregnancy or delivery, for bleeding may be profuse and at times the uterus may have to be sacrificed. Typically, the myomas will undergo remarkable involution after delivery. In myomas resected during pregnancy or puerperium there are often bizarre changes in the nuclei of the smooth muscle cells, that may be confused with sacroma. When myomectomy results in a defect through or immediately adjacent to the endometrium, subsequent pregnancies should be delivered by Cesarean Section, preferably before active labor has begun[1,5].

In this study, we evaluated those immediate outcomes go with Cesarean Myomectomy such as blood loss, time for the operation, time for the postoperational restoration of bowel movement and time of the ambulation (to bathroom), and justified with the postulated concepts.

MATERIALS AND METHODS

Those myomatas encountered in Cesarean Section by the author in Chung-Shan medical and Dental College from August 1st 1989 to

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July 31st 1990 were selected as the study cases (16 cases). All the myomatas were removed conjunctly no matter with or without pedicle. The operations were carried out by the author and one of the 3 second year residents and an intern. The control group made up by 2 cases before and one case after the study case carried out by the same author and allocated assistants, there was an additional control case because of 10 minutes overlapping of operation with a control case, and there were total 49 cases in control group.

We use general anesthesia with endotracheal intubation for all the cases and controls. The abdominal incision was routinely done by Pfannenstiel method and the uterus was incised transversely and extended to the lesion if possible for those study cases. The myomatas were removed by enucleation after the delivery of the baby. The uterine wall and cavity of myoma was sutured or occluded by No. 0 catgut[5]. Estimated blood loss (including amniotic fluid) was calculated by a nurse through counting the amount in the suction bottle and the wet sponge count. Ambulation time was measured from the end of operation to the first bathroom ambulation. Bowel movement restoration time was measured from the end of operation to the report of flatus passage.

Puerperal morbidity is defined as a "temperature of 38.0 degree C or higher, the temperature to occur on any two of the first 10 days postpatum, exclusive of the 24 hours, and to be taken by mouth by a standard technique at lease 4 times daily"[1].

RESULTS

Pathology: All the surgical specimen were reported as liomyoma, no case combined adenomyosis or secondary change.

The simple statistics of variables (age, parity, operation time, estimated blood loss, size of the myoma, time for bowel movement restoration, time for ambulation) for the study and control groups were shown in table one and table two.

The mean operation time of study group was 59.94 minute. It is longer than the time used in control group ($P < 0.05$).

There is no significant difference in terms of estimated blood loss, bowel movement restoration time, ambulation time between the case and control groups($P < 0.05$) (see table 1).

The Person correlation coefficients for the variable concerned were shown in table 3.

There are positive correlation between age and ambulation time, estimated blood loss, bowel movement restoration time in control group. There also showed positive correlation between operation time and bowel movement restoration time, tumor size are estimated blood loss in case group (see table 2, 3).

There was no maternal morbidity nor morbidity of both study and control groups.

DISCUSSION

It is estimated that the chance of having a myoma in women life is 20%[2,8], but Winter Muran[3] pointed out the chance that myoma encountered in Cesarean Section is around 0.5-2%. It is probably due to the pregnancy does occur prior to the prevalent period of having a myoma.

Generally, myoma would not interfere with the progress of pregnancy except rare conditions (abortion, malpresentation, placenta previa, obstructive labor, secondary infertility) were attributable[3].

We found there is positive correlation with tumor size and blood loss ($r=0.79$, $p=0.0002$) in the study group. The excessive

Table 1. Comparision between Case and Control

	Case			Control			
Terms	N	Mean	SD	N	Mean	SD	*P value
Age (years)	16	31.50	4.59	49	29.65	4.27	P>0.05
Parity	–	38.63	1.09	49	39.22	1.26	P>0.05
Operation time (minute)	16	59.94	12.27	49	47.22	10.71	P<0.05
EBL (ml)	16	587.50	165.83	49	531.63	181.99	p>0.05
Tumor size (cubic cm)	16	52.69	81.19	49	–	–	–
Bowel movement (days)	16	27.38	6.28	49	26.65	7.58	P>0.05
Ambulation time (days)	16	25.06	3.96	49	25.69	4.47	P>0.05

* p-value based on the student's t test between control group and case group

Table 2. Correlation Analysis (Case)

	Age (year)	Parity	Operation time (minute)	EBL (ml)	Tumor size (cubic cm)	Bowel movement (days)	Ambulation time (days)
Age	1.00	−0.11	0.10	0.24	0.34	−0.20	0.12
Parity		1.00	−0.71*	−0.18	−0.11	−0.34	−0.06
Operation time			1.00	0.09	0.19	0.57*	−0.04
EBL				1.00	0.79*	−0.21	0.05
Tumor size					1.00	−0.35	0.04
Bowel movement						1.00	−0.00
Anbulation time							1.00

* $P < 0.05$

Table 3. Correlation Analysis (Control)

	Age (years)	Parity	Operation time (minute)	EBL (ml)	Bowel movement (days)	Ambulation time (days)
Age	1.00	−0.35*	0.10	0.21	0.15	0.36*
Parity		1.00	−0.22	−0.40*	0.03	−0.13
Pperation time			1.00	−0.10	0.05	0.17
EBL				1.00	0.31*	0.00
Bowel movement					1.00	0.25
Anbulation time						1.00

* $P < 0.05$

bleeding is supposed to result from the difficulty for removing the bigger mass.

The average time consumed for study group is longer than control group (59.94 min ± 12.27 min vs 47.22 min ± 10.71 min p=0.0017). It is reasonable because conjunct operation for the myomectomy were made. There could be a bias for the operation time consumed for the study group. Selection bias rise from more intensive operation endeavour could be given to cases in the study group.

The enucleation of the myoma is technically easier in the gravid than in the non-gravid uterus owing to the greater loosenness of the capsule[4]. On the other hand, there is, on the average, more danger from free bleeding and greater need for vigorous attention and gentleness in handling the uterus and carrying out the enucleation of the tumors. Rigid asepsis, complete hemostasis, accurate coaptation of raw surfaces and careful peritonization of the uterine wounds are the essential details of this most delicate of all conjunct Cearean Myomectomy to lessen blood loss as well as the postoperative complication and especially those adverse effects on fertility.

For the advancement in the operation facilities, blood transfusion, pre and post operation care, we found that there are no significant differences of time for bowel restoration and time for ambulation between the study group and control group.

The time needed for the bowel restoration after operation is positive correlated to the operation time (r=0.57498, p=0.0198) in the study group, it was reasonable and was addressed by many authors[4,5,6].

We have a policy that the Foley catheter was removed exactly at 24 hours after operation that most of puerperist had gone to bathroom soon after the removal of the Foley catheter. Significant test for this variable would be meaningless.

The positive correlation between blood loss and postoperation bowel movement restoration of age versus parity, and blood loss versus parity in control group were noticed. All of these findings could be fortuitous.

We have no data about the subsequent status fertility and delivery, but with our policy, most of the subsequent delivery would be carried out by Cearean Section, and the role of previous momectomy would not contribute much in decision making. We hope we could have information about the status of fertility with appropriate follow up, and we believe that with agile operation, the fertility would not be interfered. Furthmore, myoma in situ is considered as a cause of prematurity, fetal loss, still birth and interstitial pregnany [10].

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剖腹產中之子宮肌瘤切除

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在剖腹產中，併行子宮肌瘤切除一直不為學者所贊同，作者在1989年8月1日至1990年7月31日以中山醫學院附設醫院婦產科施行剖腹術時併行子宮肌瘤切除之16個病例為研究組，另外每一病例之前2位及後一位由作者施行之剖腹產當對照組，因為其中有一病例與對照病例手術時間部分重疊，故總共有49個對照組。作者研究其手術時間，失血量，罹病情形、下床行動及腸蠕動所需時間作一比較，在研究組手術所需時間比對照組多，但失血量，腸蠕動，恢復時間，併發症，下床走動時間並無顯著的差異，研究組中，子宮肌瘤大小與失血量有正相關。作者希望由上述的研究能提供醫師在手術判斷時的參考。
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