

Etiological Factors of Placenta Praevia at Rashed Ben Al-Hasen Hospital

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Objectives: This study was conducted to determine whether there was a significant relation between placenta praevia and previous history of dilatation and curettage, evacuation of retained products of conception, previous caesarean section and spontaneous abortion.

Methods: Sixty women with proven placenta praevia were reviewed and analyzed, over two years.

Results: There was a significant correlation between placenta praevia, and dilatation / curettage (18 cases), evacuation of retained products of conception (31 cases), previous caesarean section (10 cases) and spontaneous abortion (28 cases).

Conclusion: Findings of the study are consistent with the hypothesis that endometrial - myometrial damage is significant in the etiology of placenta praevia.

Bahrain Med Bull 1999;21(2): 56-57

Clinically apparent placenta praevia is a serious but uncommon complication of pregnancy. It was found that placenta praevia complicated 4.8 per 1000 deliveries and was fatal in 0.03% of cases¹. Multiparity, advancing age, previous caesarean section, multiple pregnancies, placenta accreta, cigarette smoking and previous dilatation and curettage increase the risk of placenta praevia, low socio-economical cases as well as diabetic and pregnant women who bear male fetus also increases the risk of placenta praevia¹⁻⁹. Singh and associates⁹ for example, identified placenta praevia in 3.9 percent of women who had undergone caesarean delivery, compared to 1.9 percent for the whole obstetrical population.

The mechanism by which many of these factors lead to placenta praevia are ill-defined. One major theory proposes that damage to the endometrium or myometrium may alter the site of implantation. Other factors include defective vascularization of the decidua, the possible result of inflammation or atrophic changes. Another factor is a large placenta which spreads over a wide area of the uterus as seen in erythroblastosis fetalis and multiple pregnancies. This study was undertaken in order to investigate possible aetiological factors that increase the risk of placenta praevia.

METHODS

All cases of placenta praevia treated by caesarean section at Prince Rashed Ben Al-Hasen Hospital between January 1995 and December 1996 were reviewed and analyzed. In each, the diagnosis of placenta praevia had been confirmed by ultrasound and at caesarean section. Parity was defined as the number of previous pregnancies reaching at least 28 weeks gestation excluding terminations and spontaneous

abortions. Details of the past obstetric history were recorded for all cases.

RESULTS

There were 60 cases of placenta praevia. During the same period there were 12050 deliveries in the unit; the incidence of placenta praevia was 0.5 percent. The patients ranged in age from 19 to 44 years, with a mean of 30.98.

Review of the past gynaecological procedures revealed that dilatation and curettage unrelated to pregnancy had been performed in 18 cases. Evacuation of retained products of conception had been performed in 31 cases. A history of lower uterine segment caesarean section was found in 10 cases, previous spontaneous abortion had occurred in 28 cases.

DISCUSSION

The main finding of this study was that the incidence of placenta praevia increases in those cases with previous

Table 1: Parity in cases with placenta praevia

Parity	Placenta praevia
0	1
1	2
2	3
3	3
4	5
5	6
6	6
7	7
8	8
9	10
10	9

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Table 2: Procedures performed on cases of placenta praevia

	Placenta praevia
Dilatation and curettage	18
Evacuation of retained products	31
Lower uterine segment caesarean section	10
Medical Termination of pregnancy	4
Spontaneous abortion	28

Table 3: Socio-economical class and placenta praevia

Low socio-economical class	48 cases
High social cases	12 cases

history of operative procedures that could damage the endometrium or myometrium. This supports the hypothesis that such damage is an aetiological factor in placenta praevia.

Many workers, namely Bender⁸, Cotton, et al⁹ and Singh et al⁶ found that there was an association between placenta praevia and previous caesarean section, and our study supports their findings. The association between placenta praevia and spontaneous abortion (28 cases) and evacuation of retained products of conception (31 cases) supports the findings obtained by Brenner and Cotton^{7,9}. The lack of association between termination of pregnancy and placenta praevia is in agreement with other studies¹⁰⁻¹². This lack of association could be attributed to the lack of sharp curettage in this group of patients.

CONCLUSION

In conclusion endometrial and myometrial damage induced by lower uterine segment caesarian section and sharp curettage play a role in low implanatation of placenta.

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