ANTEPARTUM HAEMORRHAGES IN THREE DECADES

by

B. Das,* M.B.B.S., D.G.O. (Cal.), M.R.C.O.G. (Lond.)

Introduction

The evaluation of modern obstetrics in the management of antepartum haemorrhage leads to the doubtful thoughts regarding its real value.

This paper is based upon statistical data of antepartum haemorrhage cases admitted and managed from 1941 to 1970 in Chittaranjan Seva Sadan College of Obstetrics, Gynaecology & Child Health, Calcutta. Only those cases proved to be placenta praevia and accidental haemorrhage have been included here and grouped in every 10 years. The cases of antepartum haemorrhage due to incidental causes have not been taken into consideration. A detailed study of 45 cases of placenta praevia and 21 cases of accidental haemorrhage treated in 1970 has also been presented.

Criteria of Diagnosis

(a) The diagnosis of placenta praevia is made when the patients are admitted with history of painless bleeding in last trimester and if any one or more of the following points are noted:

(i) Placenta is felt vaginally when examination is done.

(ii) Confirmation during natural confinement or abdominal delivery.

(iii) The opening of membranes at the margin of placenta.

(iv) Tongue shaped thin projection of placenta.

(b) The diagnosis of accidental haemorrhage is made on basis of bleeding per vaginam in last trimester with history of pain and tenderness of the uterus if any. Confirmation is done by actual presence of retroplacental clot and/or crater on the decidual surface of placenta after confinement.

Incidence

The incidence of placenta praevia and accidental haemorrhage is noted to be higher in this series as compared to those of other workers.

TABLE 1

Incidence of Placenta Praevia and Accidental Haemorrhage

Year	Total confinement	Placenta Praevia	Incidence	Accidental haemorrhage	Incidence
1941-50	38,923	318	1 in 122.5	86	1 in 452
1951-60	74,566	543	1 in 137	701	1 in 106
1961-70	72,351	472	1 in 153	647	1 in 116
1941-70	1,85,840	1,333	1 in 139	1,434	1 in 129.5

*Visiting Surgeon, Chittaranjan Seva Sadan Hospital.

Received for publication on 29-7-74.

A. *Clinical Analysis*

1. *Age*—Average age of 1,333 cases of placenta praevia is 29.6 years and that of

1434 cases accidental haemorrhage 24 years, the maximum incidence of accidental haemorrhage and placenta praevia is in the range of 26-30 years as detected in 1970.

2. *Parity*—The average parity in placenta praevia is found to be 4.5 and in accidental haemorrhage 3.5 in these years. The maximum incidence of placenta praevia and accidental haemorrhage is in the range of 2nd to 5th pregnancy as found in 1970.

3. *Incidence of Primigravida*—Though it is commonly believed that placenta praevia and accidental haemorrhage are less common in primigravida, it was found to be not so infrequent as observed in the following table:

TABLE II
Incidence in Primigravida

	Placenta praevia				Accidental haemorrhage			
Years	Total case	No. of primigravida	Per cent	Incidence	Total case	No. of Primi	Per-cent	Inci-dence
1941-50	318	42	13.2%	1:7.6	86	11	12.8%	1:8
1951-60	543	41	7.6%	1:13	701	123	17.5%	1:6
1961-70	472	79	16.7%	1:6	647	181	28.0%	1:3.6
1941-70	1333	162	12.2%	1:8:2	1434	315	21.9%	1:4.5

4. *Weeks of Gestation*—The average weeks of gestation in cases of placenta praevia is 37.5 and that of accidental haemorrhage was noted to be 35 weeks. In 1970 maximum cases of placenta praevia were found in the range of 37-40 weeks and accidental haemorrhage between 33-36 weeks of gestation.

5. *Presentation of the Foetus*—Analysis of the cases from 1970 reveals that vertex presented in 82.2% cases of placenta praevia and 90.5% cases of accidental haemorrhage and breech was found in 17.8% & 9.5% cases, respectively.

6. *Type of Placenta Praevia*—In the year 1970, Type I and Type II anterior comprised 35.5% and Types II posterior, III & IV was noted in 64.4% cases of placenta praevia, whereas in accidental haemorrhage concealed variety was found in 9.5% and mixed and revealed type was observed in 90.5%.

B. *Treatment*

The sheet anchor of treatment in this hospital is artificial rupture of membranes in partial placenta praevia and in almost all cases of accidental haemorrhage. In recent years abdominal delivery is being liberally used in cases of placenta praevia and only in selected cases of accidental haemorrhage.

Caesarean Section

Incidence of abdominal delivery has been analysed in Table IV.

Blood transfusion was required in 37.8% cases of placenta praevia and 33.3% cases of accidental haemorrhage in the year 1970. In the same year it has been observed that antepartum stay in hospital is 1 to 5 days in 100% cases of accidental haemorrhage and 68% in cases of placenta praevia. In 10% cases of placenta hospital stay was for 10 days in the antepartum period. Average stay in postpartum period in both groups is about

TABLE III
Incidence of Artificial Rupture of Membrane in A.P.H.

Year	Placenta praevia			Accidental haemorrhage		
	Total cases	No. of A.R.M.	Per cent	Total cases	No. of A.R.M.	Per cent
41-50	318	198	62.3	86	81	94.2
51-60	543	198	36.4	701	360	52.2
61-70	472	140	29.4	647	365	56.9
41-70	1333	536	42.2	1434	806	56.2
1970	45	15	33.3	21	18	85.7

TABLE IV
Incidence of Caesarean Section

Year	Placenta praevia			Accidental haemorrhage		
	Total cases	No. of C.S. done	Per cent	Total cases	No. of C.S. done	Per cent
41-50	318	7	2	81	Sil	Nil
51-60	543	153	29	701	11	1.6
61-70	472	210	45	647	37	5.7
41-70	1333	370	27.7%	1434	48	3.2
1970	45	28	62.2%	21	Nil	Nil

6 days when delivered vaginally and 13 days when delivered abdominally.

Mortality

Table V shows a decline in maternal mortality in both groups after 1950 but there has been little change in death rate between 1951-1970.

TABLE V
Maternal Mortality

Year	Placenta praevia		Accidental haemorrhage	
	No. of cases	Per cent	No. of cases	Per cent
41-50	42 (14 undelivered)	13.2%	11	12.8%
51-60	13 (1 undelivered)	2.4%	15	2.0%
61-70	10 (1 undelivered)	2.1%	13	2.0%

TABLE VI
Perinatal Mortality

Year	Placenta praevia			Accidental haemorrhage		
	Total No.	Perinatal loss	Per cent	Total No.	Perinatal loss	Per cent
41-50	318	134	42%	86	50	58.1%
51-60	543	189	34.8%	701	289	41.2%
61-70	472	160	33.9%	647	334	51.5%
41-70	1333	483	36.2%	1434	673	46.8%

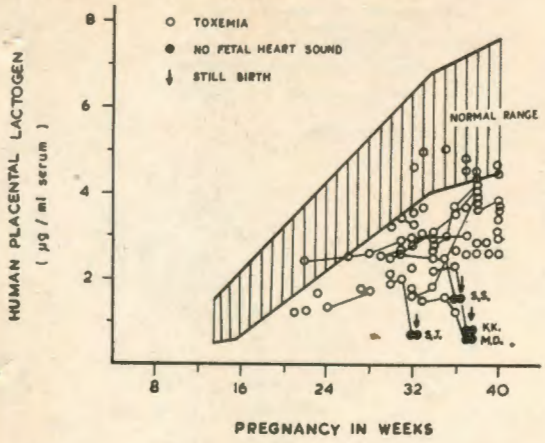

Fig. 1
Serum human placental lactogen in toxemic pregnancies compared with range in the normal pregnancies: Joined points indicate values in the same patient.

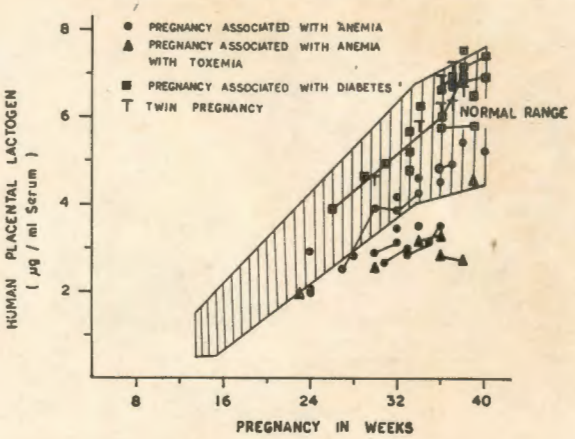

Fig. 2
Serum human placental lactogen levels in pregnancies associated with anemia, diabetes and twin pregnancies: Joined points indicate values in the same patient.

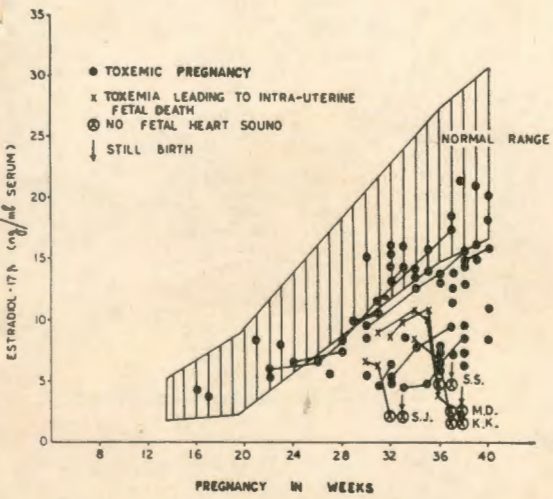

Fig. 3
Serum estradiol-17B level in toxemic pregnancies compared with range in the normal pregnancies: Joined points indicate values in the same patient.

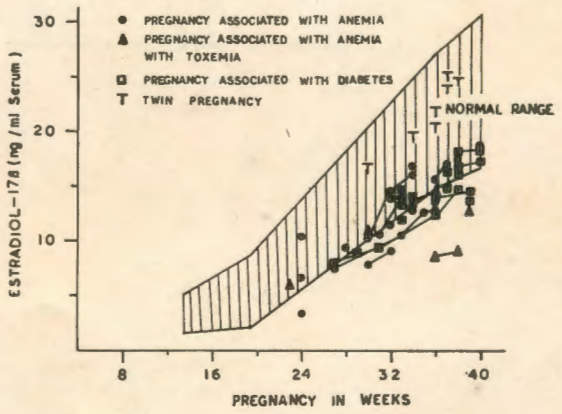

Fig. 4
Serum estradiol-17B levels in pregnancies associated with anemia, diabetes and in twin pregnancies: Joined points indicate values in the same patient.

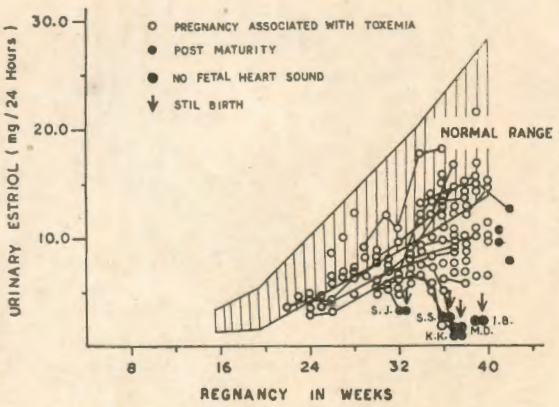

Fig. 5

Urinary estriol level in toxemic pregnancies compared with range in the normal pregnancies: Joined points indicate values in the same patient.

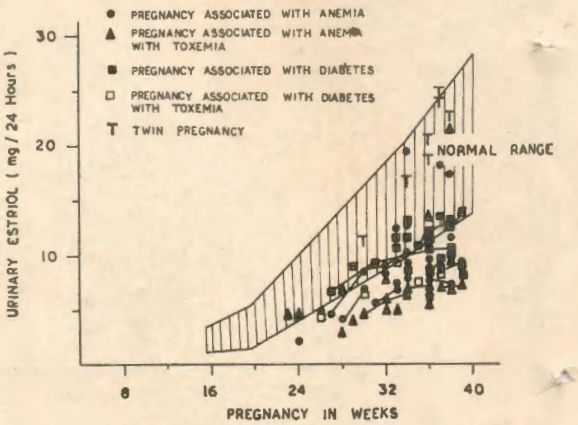

Fig. 6

Urinary estriol levels in pregnancies associated with anemia, diabetes and in twin pregnancies: Joined points indicate values in the same patient.

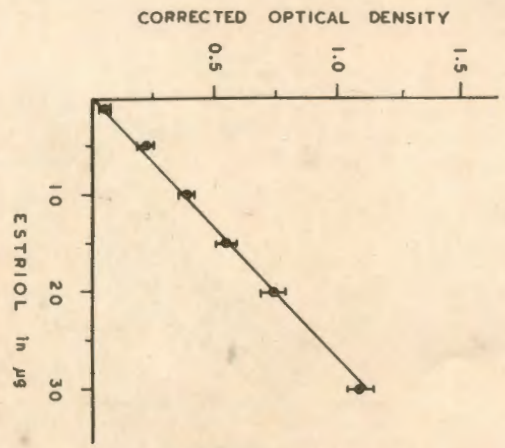

Fig. 7

Standard dose response curve of estriol: values, expressed as Mean ± S.E. for 10 replicate observations are shown.

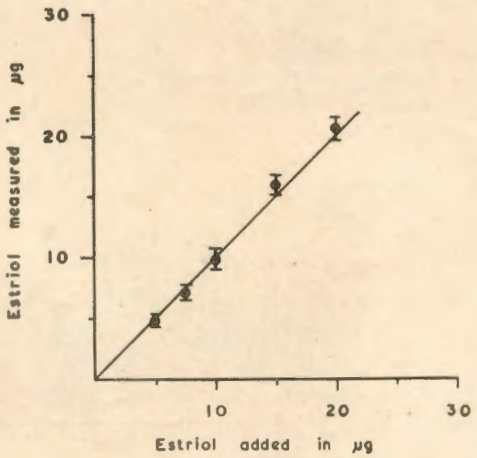

Fig. 8

Accuracy of the assay method for urinary estriol estimation: The recovery of estriol for every addition of standard estriol, expressed as Mean ± S.E., is shown.

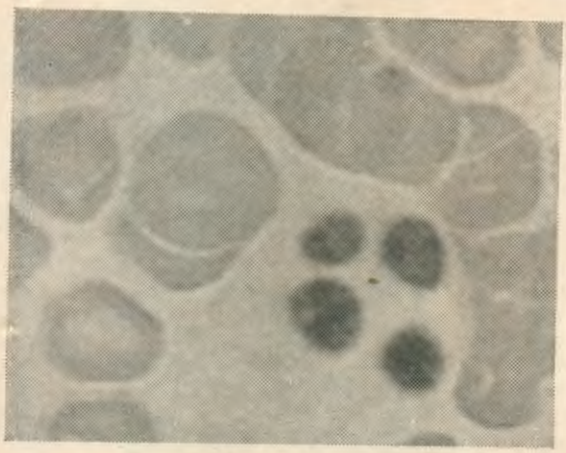

Fig. 1
Neutrophil shows colourless cytoplasm.

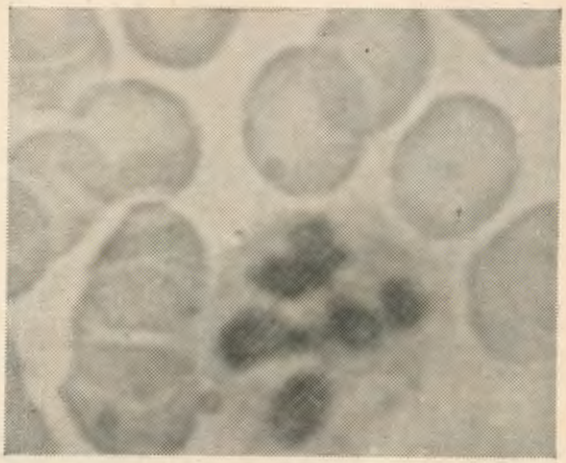

Fig. 2
Neutrophil shows diffuse pale brown cytoplasm, no granules.

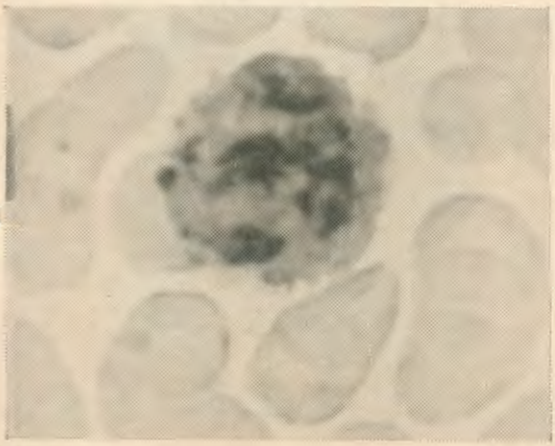

Fig. 3
Neutrophil shows brown with or without occasional clumps of brownish black precipitate.

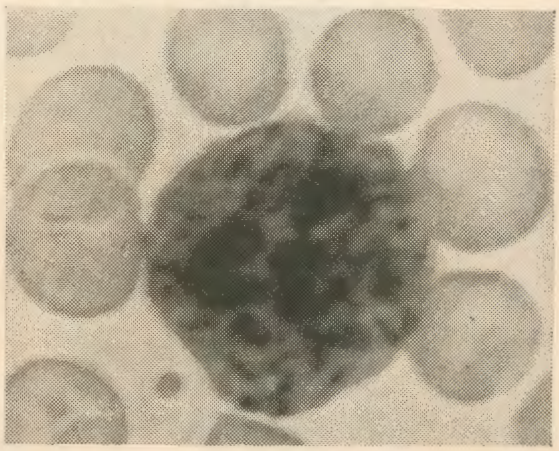

Fig. 4
Neutrophil shows brownish black, unevenly distributed granular precipitate.

Significance of Changes in Alkaline Phosphatase—Achari and Mohanty pp. 657-661

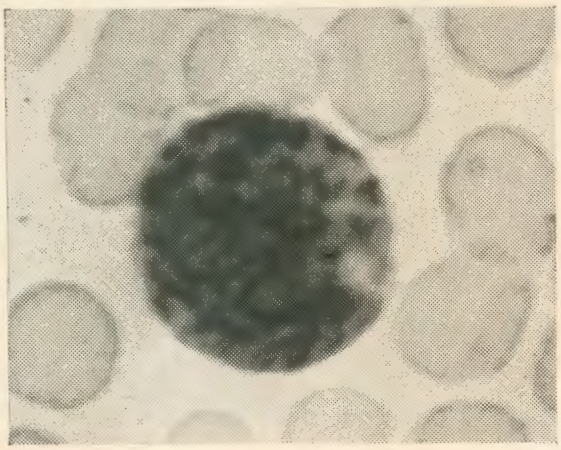

Fig. 5
Neutrophil shows uniform deep black granular precipitate.

Dystocia Due to Foetal Abdominal Enlargement—Jhaveri et al pp. 699-701

Fig. 1
Showing evisceration wound and distended abdomen.

Fig. 2
Showing internal anatomy on opening the abdomen. Right fallopian tube is seen lying across the cloaca.

Fig. 3
Shows cloaca, kidneys, ureters and lower end of large gut. Genital tubercle and swellings are also seen.

Spontaneous Regression—Rao and Bhan pp. 695-696

Fig. 1
Bilateral lower ureteral obstruction demonstrated in an I.V.P. following right nephrostomy.

Fig. 2
I.V.P. 3 weeks later showing complete spontaneous regression of the previous hydroureteronephrosis.

Choriocarcinoma of the Uterus—Palaniappan and Paul pp. 697-698

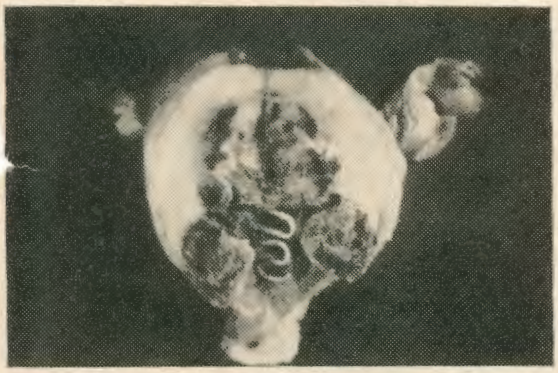

Fig. 1
Uterus showing the I.U.D. embedded in the growth. x 250.

Fig. 2
Microphotograph showing columns of both syncytial and Langhan's cells invading the myometrium.

Uterine Fibroid in Labour—Kawathekar et al pp. 702-704

Fig. 1
Diagramatic sketch showing the extreme elongation of the foetal neck because of the obstructing fibroid.

Fig. 2
Shows the cut section of the fibroid ennucleated in case 1.

Fig. 3
Shows the cervical fibroid.

A Case of Fundal Rupture of the Uterus—Sitaratna pp. 705-706

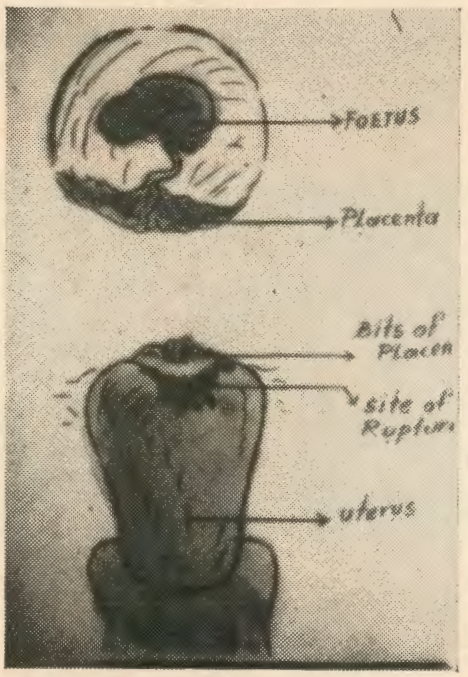

Fig. 1
Diagrammatic sketch of the case.

Placenta Accreta Treated by—Caesarean Hysterectomy—Sitaratna pp. 707-708

Fig. 1
Specimen of the uterus with placenta in situ.

Facial Paralysis Due to Metastatic Chorionic Epithelioma—Gupta et al. pp. 709

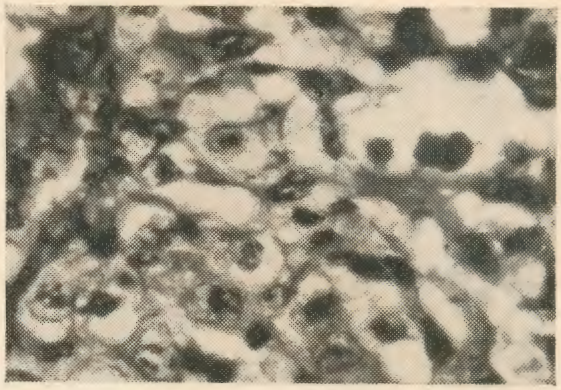

Fig. 1
Photomicrograph from the bit at right internal auditory meatus showing closely packed cytotrophoblastic (Langhan's) cells, having clear cytoplasm, distinct cellular out line and uniform sized nuclei. A few cells show eosinophilic cytoplasm and dark staining nuclei, picture compatible with chorionic epithelioma.

Uretero Uterine Fistula Following Lower Segment—Mohanty pp. 710-712

Fig. 1
I.V.P. Showing poor concentration of dye over right kidney. The right ureter is not visualised.

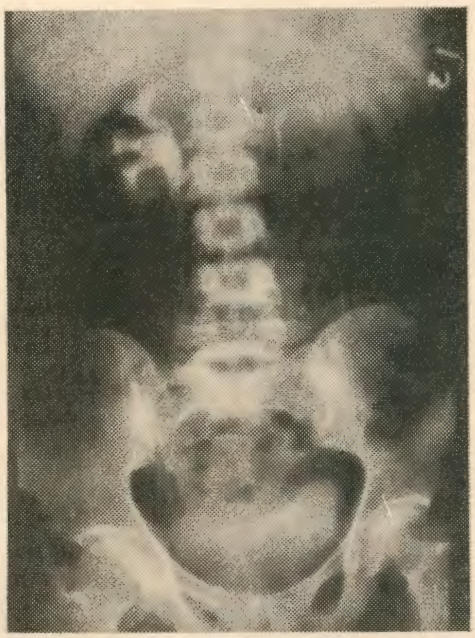

Fig. 2
Postoperative I.V.P. showing right pelvis and ureter upto the bladder.

ANNOUNCEMENT

In future readers may send questions pertaining to Obstetric and Gynaecological problems to the Editor. The answers by the experts will be published in a subsequent issue.

The Editor has the right to accept or reject the question. No further correspondence in the matter will be entertained.

INDEX TO ADVERTISERS

Table VI shows uncorrected perinatal loss. Corrected perinatal loss could not be presented due to incomplete data.

Discussion

This paper presents an analysis of 2,767 cases of antepartum haemorrhage treated in one of the largest maternity hospital. Along with this a study of 66 cases of A.P.H. in the year 1970 has also been presented. The peculiarity of this institution is that 90% of cases are admitted as emergencies; some times in extremely bad state. Clinical judgement and obstetrical manoeuvres are the only armamentorium to fight against them. In spite of sophisticated methods of localisation of placenta, a positive diagnosis of placenta praevia was made only by vaginal examination and/or during caesarean section.

The incidence of antepartum haemorrhage in the form of placenta praevia and accidental haemorrhage varied between 1 in 122.5 to 1 in 153 cases and 1 in 452 to 1 in 116 cases, respectively between the years 1941-1970. The comparison of incidence of these two major causes of A.P.H. given by different authors is given in Table VII.

The figures show that there is wide variation in the incidence due to the different diagnostic criteria employed for these two major conditions. The increased incidence of accidental haemorrhage after 1950 was probably due to the increased alertness about the diagnosis of the disease. Again the occurrence of these conditions in primigravidae was not infrequent; 12.2% placenta praevia and 21.9% accidental haemorrhage cases were in primigravidae.

Mode of treatment regarding both placenta praevia and accidental haemorrhage has undergone some changes in the last three decades. Whereas A.R.M. was the sheet-anchor of treatment upto 1950 (62.3% and 94.2%) for cases of placenta praevia and accidental haemorrhage, respectively (Table III); its application was restricted between 1961 to 1970 (29.4% and 54.9% cases). The same difference in treatment is reflected in the percentage of caesarean sections (Table IV). Upto 1950, incidence of abdominal delivery was 2 & 0% in cases of placenta praevia and accidental haemorrhage which steadily increased to 45% and 5.7% of cases respectively during 1961-70 period. Though the incidence of abdominal delivery was comparable here in India it seemed disproportionate in comparison to other countries (Table VIII).

Maternal mortality has been considerably reduced in both groups (Table V) from 13.2% and 12.8% in placenta praevia and accidental haemorrhage in 1941-50 period to 2.1% and 2.0% in 1961-70, respectively. In spite of more liberal blood transfusions and other management the perinatal loss (Table VI) did not show any significant variation.

TABLE VII

Incidence

Author:	Placenta praevia	Accidental haemorrhage
Menon (1963)	1 in 205	—
Hibbard & Jeffcoate (1966)	1 in 119	1 in 84
Gun (1951-54)	1 in 124	—
Ashar & Purandare (1968)	—	1 in 116
Present series	1 in 139	1 in 129.5

TABLE VIII
Percentage of Caesarean Sections

Author	Placenta Praevia	Accidental haemorrhages
Menon	55.3%	—
Gun	43.4%	—
Ashar & Purandare	—	0.5%
Macafee	63.4% (in group 33-36 wks.)	—
Macafee	75.7% (in group 36 weeks)	—
Hibbard & Jeffcoate	—	8.6%
Blair	—	16.4%
Present Series 51-60	28%	1.6%
61-70	45%	5.7%

For comparison the following data have been presented here.

The other analysis showed that the maximum incidence occurred in the age group 21-30 years. As expected, the multigravidae were prone to have these complications. 82.2% to 90.8% of cases of A.P.H. presented as vertex presentation. It was again observed that majority of cases had dangerous type of placenta praevia (64.3%) whereas only 9.5% had concealed variety of accidental haemorrhage. Most of our cases came as emergency and had to be treated immediately. Antepartum stay was between 1-5 days in 100% cases of accidental haemorrhage and 1-10 days in 90% cases of placenta praevia. This showed very little scope for rigid expectant treatment.

TABLE IX
Maternal and Foetal Mortality

Author:	Placenta praevia		Accidental haemorrhage	
	Maternal	Faetal	Maternal	Faetal
Macafee (52-60)	0.9%	11.1%	—	—
Gun	0.46%	32.7%	—	—
Ashar & Purandare	—	—	1.66%	87.8%
Menon (54-61)	2.2%	35.3%	—	—
Hibbard & Jeffercoate (52-64)	—	—	0.19%	50.0%
Blair (65-59)	—	—	0.52%	55%
Present Series (51-60)	2.4%	34.8%	2%	41.2%
(61-70)	2.1%	33.9%	2%	51%

Summary

Analysis of 1,333 cases of placenta praevia and 1,434 cases of accidental haemorrhage admitted and treated from 1941 to 1970 in Chittaranjan Seva Sadan Hospital is presented here.

The basis of treatment remains the same for both the groups of A.P.H., though in recent years incidence of caesarean section in cases of placenta praevia has considerably increased.

Maternal mortality has been reduced from 13.2% to 2.1% in placenta praevia and from 12.8% to 2% in accidental haemorrhage.

There is only a slight reduction in the perinatal mortality which points to the need of better antenatal supervision.

The clinical aspects of the women having antipartum haemorrhage have bee

analysed and discussed along with the morbidity as reflected by their hospital stay and treatment.

Acknowledgement

I am grateful to Dr. S. K. Ghosh, M.B. (Cal) the Director for allowing me to use the hospital records. My thanks are due to Dr. Tushar Kanti Pal, M.B.B.S.; D.G.O. (Cal) and Dr. Sumitra Mamanta, M.B.B.S.; D.G.O. (Cal) Resident House staff, for helping in collecting the data. Lastly my sincere most thanks are due to Dr. G. P. Dutta, M.B.B.S.; D.G.O.; M.O. (Cal), Visiting Surgeon for constant encouragement and help in preparation of this paper.

References

1. Ashar, L. and Purandare, V. N.: J. Obst. & Gynae. India. 18: 630, 1968.
2. Blair. Robert, G.: J. Obst. & Gynae. Brit. Cwlth. 80: 242, 1973.
3. Gun, K. M.: J. Obst. & Gynae. of India, 14: 717, 1964.
4. Hibbard, B. M. and Jeffcoate, T. N. A.: Obst. & Gynec. 27: 155, 1966.
5. Macafee, C. H. G., Gordon Millar, W. and Harley Graham: J. Obst. & Gynec. Brit. Cwlth. 69: 203, 1962.
6. Menon, M. M. K.: J. Obst. & Gynec. of Brit. Cwlth. 79: 787, 1963.