เด็กตายคลอด-ประสบการณ์ 5 ปีที่โรงพยาบาลจุฬาลงกรณ์

วงศ์กุลพัทธ์ สนิทวงศ์ ณ อยุธยา"้

ในระยะเวลา 5 ปี (2517—2521) มีผู้ป่วยคลอดที่โรงพยาบาลจุฬาลงกรณ์
ทั้งหมด 69883 ราย และมีเด็กตายคลอด 606 ราย คิดเป็นอัตราตายคลอด 8.7
ต่อจำนวนเด็กคลอด 1000 ราย พบว่าร้อยละ 16 ของเด็กตายคลอดทั้งหมดนี้มีร่วม
กับอาการแทรกซ้อนด้านอายุรกรรมร้อยละ 15.8 ร่วมกับอาการแทรกซ้อนสูติกรรม
และร้อยละ 15.8 มีความพิการแต่กำเนิดของทารก และมีสาเหตุที่น่าบ้องกันได้เช่น
ความบกพร่องในการรับการตรวจครรภ์ร้อยละ 9.2 และความบกพร่องในการคลอด
ร้อยละ 4.3 และปรากฏว่าร้อยละ 50—70 ของเด็กที่ตายคลอดไม่เคยมาฝากครรภ์
เลยและ/หรือมาตรวจครรภ์น้อยกว่าสามครั้งก่อนคลอด อัตราเด็กตายคลอด 8.7
(ต่อจำนวนเด็กคลอด 1000 ราย) ของโรงพยาบาลนี้น่าจะลดลงได้อีกด้วยการให้การ
ศึกษาให้ผู้ป่วยทราบถึงความสำคัญของการฝากครรภ์ และมีการควบคุมการปฏิบัติ
ใกล้ชิดทั้งในห้องฝากครรภ์และห้องคลอดให้มากกว่าในปัจจุบัน

Stilbirth is undoubtedly a tragic end to a pregnancy, both for the patient, her family and the medical personnel attending her. In a large percentage of stilbirths, no obvious explanation or definite cause can be found. Many of the stilbirths are, however, associated with maternal medical complications and obstetric complications. Proper antenatal care, strict selection of patients for

hospital delivery, early referals to hospital and proper management of labour will help to reduce tee number of this tragedy. The purpose of this preliminary study is to analyse 606 consecutive cases of stilbirths, delivered in the Department of Obstetrics and Gynaecology, Chulalongkorn Hospital over a period of 5 years between 1974 and 1978.

^{*} ภาควิชาสุติศาสตร์-นรีเวชวิทยา คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

MATERIALS & METHODS

This is a retrospective study of the hospital records of patients delivered of stilborns. All relevant details from the records by the house staffs or the attending staffs including dates and results of laboratory investigations were presented every month over the study period at a department stilbirth conference, presided by the departmental chairman. Fair and liberal discussions of stilbirth cases presented were encouraged to determine causes of deaths and avoidable causes in some of the cases.

Conclusions were drawn and recorded accordingly.

The records of 606 cases were studied. They were stilbirths delivered from the years 1974 to 1978 during which 69, 883 patients were delivered. A stilborn, in this study, is defined as an infant delivered at or after 28 weeks gestation weighing 1,000 G. or more, who at or sometimes after birth fails to breathe spontaneously or fails to show any other sign of life such as heart beat or definite spontaneous movement of voluntary muscles.

RESULTS

1. Incidence of stilbirths

Table I

Total number of deliveries	=	69,883
Number of stilbirths	==	606
Percentage of stilbirths	=	0.87

Table II Maternal age

Maternal Age Group	Number	%
under 20 years	67	11.91
over 20 – 30 years	365	60.2
over 30 - 40 years	140	23.1
over 40 years	34	5.6
Tot al	606	100

It can be seen from Table I and II that the highest incidence (60,2 percent) occurred in the 20-30 years

age group, followed by the 31-40 years age group. (Table I, II)

Table III Parity of patients and number of stilbirths

Parity	Number of stilbirths	%
0	224	36.9
1 – 2	226	37.4
3 - 5	114	18.8
over 5	42	6.9
Total	606	100

The incidence of stilbirths in relationship to parity is shown in Table III. It should be noted that there is

comparable rate of stilbirths occurring in primigravidas (36.9 percent) and gravida 2 and 3 (37.4 percent)

2. Antenatal attendance rate vs. number of stilbirths.

Table IV Poor antenatal attendance (irregular and/or less than 3 visits)

Year	Number of cases with poor antenatal attendance	Total stilbirths	annual percentage
1974	74	109	67.9
1975	69	109	63.3
1976	90	138	65.2
1977	62	116	53.4
1978	64	134	47.8

The important role of the antenatal care is clearly demonstrated in Table IV. Over the five years study period. between 50-70 % of the patients delivered of stilborns did not attend antenatal

clinic, or their records showed irregular attendance or less than 3 attendances during the entire pregnancy. The number of these patients has been decreasing from 67.9 % in 1974 to 47.8 % in 1978.

3. Gestational age, complications of pregnancy and delivery

Table V Gestational age of Stilbirths at delivery

Weeks of gestation	Number of stilbirths	%
28 - 32	190	31.4
33 – 36	188	31
37 – 40	148	24.4
40 +	80	13.2
total	606	100

Table V. illustrates that most stilbirths occurred or were delivered

between 28-36 weeks of gestation, that is in 378 cases or over 60 % of total.

Table VI Major obstetric complication

Obstetric complications	Number of stilbirths	%
Abruptio placentae	26	32.9
Pre-Eclampsia	21	26.6
Placenta praevia	14	17.7
Cord prolapse	14	17.7
Obstructed labour	4	5.1
total	79	100

Almost one - third of stilbirths in this series was recorded with the abruptio placentae. Most of our cases with cord

prolapse were referred cases from outlying health centres. (Tabel VI)

Table VII Medical complications in patients with stilborns.

	1. Syphilis	38 cases
	2. Chronic hypertensive vascular disorder	28 cases
Ì	3. Diabetes Mellitus	9 cases
	4. Heart diseases	8 cases
	5. Systemic Lupus Erythematosus	4 cases
	6. Rh isoimmunization	4 cases

Major medical complications found in patient delivered of stilborns are listed in Table VII. Thirty eight cases of syphilis were found in patients

delivered of stilbirths, and only 4 cases of Rhesus Isoimmunization were found among the stilbirths.

Table VIII Method of deliveries

Methods of delivery	Number of stilbirths	%	
Caesarean Section	59	9.73	
Forceps Extraction	47	7.75	
Vacuum Extraction	12	1.98	
Breech Delivery	92	15.18	
Spontaneous Vertex Delivery	389	64.14	
Destructive Operation	· · · · · · · · · · · · · · · · · · ·	1.16	
Total	606	. 100 .	

Table VIII shows method of delivery used in the 606 cases of stilbirths. Over 60 % were delivered spontaneously, destructive operations were performed

in cases with abnormal and foetal anomalies including a pair of conjoined twins.

Table IX Maceration, associated placental anomalies, and sexual distribution

Year	Number of cases: with maceration.	Number of cases with placental anomalies etc	Sex Stilbi Male	
1974	43	6	60	49
1975	49	4 4	66	43
1976	56	5	85	53
1977	47	· · · · · · · · · · · · · · · · · · ·	75	41
1978	63	9	78	56
Total	258	31	364	242

Table IX offers 3 interesting observations. Firstly, nearly half of the stilbirths were macerated. (258 out of 606 cases) Secondly, there seemed to be a consistently higher incidence of male over the female stilbirths. Thirdly, there were only 31 cases of placental and cord anomalies which included short cords, true knots in the cords, torsion of the cords and varying degrees of placental infarcts.

4. Congenital anomalies among the stilbirths.

Table X Congenital anomalies among the stilbirths,

Types of foetal anomalies	Number	%
 Hydrocephalus Anencephalus Spina bifida Myclodysplasia Hydrops foetalis Conjoined twins Exomphalos Multiple anomalies 	15 13 8 5 42 1 2	15.6 13.5 8.3 5.2 43.8 1.0 2.0 10.6
Total	96	100

Majority of congenital anomalies in 96 stilbriths, in this series involves the central nervous system. There were 15 cases of hydrocephalus, 13 cases of anencephalus, 8 cases of spina bifida, and 5 cases of meningo-myelocoele. These cases constituted part of the unavoidable stilbirths as all of the above mentioned anomalies were not com-

patible with life.⁽⁹⁾ The 42 cases of hydrops foetalis were cases of Bart's Haemoglobin, Rhesus Isoimmunization, ABO incompatibility and severe congenital heart disease. In a number of cases, the causes were impossible to determine due to the advanced state of maceration in some of the foetuses.

5. The failures of management.

Table XI Antenatal care failures (avoidable failure)

Year	Number of stilbirths antinatal care failure	Total number of stilbirth in in same year	percentage of stilbirth with antenatal care failure out of total annual stilbirths
1974	12	109	· 11
1975	8	109	7.3
1976	9	138	6.5
1977	14	116	12.1
1978	12	134	8 .9

Table XI illustrates cases where there were negligence, mismanagement or oversight at the antenatal clinics level and this was categorized "avoidable" failure. Cases included diagnosed but untreated syphilis, post maturity, unsuspected cases of intrauterine growth retardation, and failures to identify cases of "high risk pregnancies" with subsequent lack or delay of appropriate action.

Table XII Labour Ward failures (avoidable failure)

Year	Number	:	Total	%
1974	5	:	109	4.6
1975	5	:	109	4.6
1976	7	:	138	5.1
1977	5	:	116	4.3
1978	4	:	134	3.0

Table XII illustrates cases due to labour ward failures (avoidable failures). These cases were caused by negligence, mismanagement or failures at the labour ward level. Cases also included delayed decisions for operative delivery, inadequate

labour monitoring because of the extremely heavy load of work, cases of unsuspected cephalo-pelvic disproportion, shoulder dystocia, difficulty with the after coming head of a breech and injuries from inappropriate instrumental deliveries.

6. The "avoidable" and "anavoidable" stilbirths.

Table XIII avoidable stilbirths— (cases)

Year	Number of avoidable stilbirths	Total stilbirths, same year	annual percentage of avoidable stilbirths.	
1974	18	109	16.5	
1975	29	109	26.6	
1976	16	138	11.6	
1977	21	116	18.1	
1978	24	134	17.9	

Based on data from patients' records, results of autopsies and conclusions drawn at the Department's monthly stilbirths conference during 1974-1978, the results

in Table XIII showed that between 11.6% to 26.6% of the cases could possibly have been avoided if appropriate actions were taken professionally at the appro-

priate times. Avoidable factors do not include patients' lack of education, economic pressures, ignorance of irrespon-

sibility on their parts in pregnancy management.

Table XIV unavoidable stilbirths

Year	Number of unavoidable stilbirths	Total stilbirths same year	annual percentage of unavoidable stilbirths
1974	91	109	83.5
1975	95	109	87.2
1976	105	138	76.0
1977	84	116	72.4
1978	110	134	82.1

Between 72 to 87% of the cases in Table XIV were deemed as probaby unavoidable stilbirths. They include cases of severe abruptio placentae, foetal anomalies, severe medical complications and patients' irresponsibility, ignorance or lack of co-operation. It is difficult to pass judgements in some of the cases but those in the "probably unavoidable" categories were mostly unscheduled cases and did not receive any antenatal care.

DISCUSSION

This paper reported the results of a preliminary study in 606 consecutive stilbirths in Chulalongkorn Hospital. The cases were categorized as "avoidable" and "unavoidable" by monthly departmental stilbirth conference and the conclusion and recommendations were drawn to prevent "avoidable" cases due to mismanagement. It is hoped that more in-depth communication could be

presented as to the result of our improved management policies in the future.

More than half of mothers, delivered of stilbirths in this series, were of active reproductive age group. The lower incidence in other age groups may be explained by their smaller representation in the total number of patients delivered and also by their being in a special category of "high-risk pregnancies", where care during the entire pregnancy is closedly supervised. Our findings also the importance of regular showed antenatal care as parity increased and the antepartal hemorrhage accounted for over half of the obstetric complications. This should reinforce the widely accepted practice of careful patient selection for hospital delivery. (2,5,8,10)

From this preliminary study, it could be concluded that the incidence of stilbirths of 0.87% or stilbirth rate

of 8.7 may be reduced by:

- 1. better patients' education and antenatal care instructions.
- 2. regular antenatal clinic attendance.
- 3. fairer load distribution to the hospital.
- 4. careful selection of cases for hospital delivery to avoid neglect, mismanagement and delay in referals from health centres.
- 5. more personnel and closer supervision at antenatal clinics and in the labour ward.

ACKNOWLEDGEMENT

The author is most grateful to Associate Professor Banpot Boonsiri for his encouragement and support and to staff members, residents and interns of the Department of Obstetrics and Gyneecology, Faculty of Medicine, Chulalongkorn University for their contributions during the monthly Stilbirth Conferences, from which the datas in this study were collected.

REFERENCES

- 1. Bernard R.P. et al: International maternity care monitoring. Int. J Gyn Obstet 17: 24-39, 1979.
- 2. Brenner W.: Placenta praevia. ACOG UPDATE. 1978. Vol 4. No. 3. Editor: MARTH STONE. president ACOG.
- 3. Burrow G.N., Ferris T.E.: Medical complications during pregnancy Philadelphia: W.B. Saunders Co. 1975. p. 171.
- 4. Obstetrics Emergencies, 2 nd Edition. Cavanagh, Woods and Oconnor Medical Department, Harper and Row, Publishers, Hagerstown, Maryland. 1979.
- 5. Donald Ian: Practical Obstetric Problems. 4th ed. London: Lloyd-Luke (Medical Books) Ltd. 1969. pp 8-11
- 6. Pitkin J, Scott: Year Book of Obstetrics and Gynecology 1978. Chicago: Year Book Medical Publishers, Inc. 1978.
- 7. Phaosawasdi S.: Department of Obstetrics and Gynaecology, Chulalongkorn Hospital. Procedings-1st Asia and Oceania Congress of Perinatology. 1979.
- 8. Prichard J.A. Macdonald P.C.: Williams Obstetrics 15th ed. New York: Appleton-Century-Crofts. 1976. p. 4
- 9. Rosa F.W.: International aspects of perinatal mortality. Clin Obstet Gynaeco 13:57-78. 1978.
- 10. Wallace H.M.: Factors associated with perinatal mortality and morbidity Clinical Obstet Gynaeco 13:13-43, 1970.