HYPERTENSION

Parity:	Primigravidæ and Virtual Primigravidæ ..	8	
	Multiparæ	18	49
	Grand Multiparæ	23	
Degree:	Mild (systolic ad 149)	12	
	Moderate („ „ 150–169)	18	49
	Severe („ „ 170 and upwards) ..	19	
Hypertension per se		35	
Hypertension with superimposed pregnancy toxæmia		14	49
Spontaneous onset of labour		34	
Induction by A.R.M.		11	49
Induction by stripping of membranes		2	
Cæsarean Section		2	
Fœtus survived		41	
Neonatal death		1	49
Stillbirths		4	
Miscarriage fœtus		3	
Previous sympathectomy		2	
Previous Cæsarean Section		1	
Hydramnios		1	
Acute puerperal cardiac failure		1	

TOXIC ACCIDENTAL HÆMORRHAGE.

Parity:	Primigravidæ	5	
	Multiparæ	11	22
	Grand Multiparæ	6	
Maternal Death: Nil.			
Fate of Fœtus:	Survived	8	
	Neonatal Death	2	23
	Stillbirth	13	(one extra twin)
Clinical Severity:	Mild	6	
	Mild to Moderate ..	3	
	Moderate	9	22
	Moderate to Severe ..	2	
	Severe	2	
Transfusion		12	
A.R.M. (treatment and induction)		10	
Cæsarean Hysterectomy		1	
Clinical Variety:	Hypertensive	6	
	Toxæmic	7	22
	Doubtful Origin	9	
Cortical Necrosis (clinical and biochemical)		1	

THREE YEARS' FIGURES (1950, 1951 and 1952).

(78 *Cases*)

	1950	1951	1952	Total	
Primigravidæ	5	0	5	10	} 78
Multiparæ	13	15	11	39	
Grand Multiparæ ...	11	12	6	29	
Maternal Mortality ...	1	2	0	3	Cortical Necrosis, 1; Suprarenal hæmorrhage, 1; Pulmonary embolism, 1.
Babies survived	14	13	8	35	44 per cent.
Babies lost	15	14	15	44	
Mild	11	11	6	28	
Mild to Moderate ...	—	1	3	4	
Moderate	14	10	9	33	
Moderate to Severe ...	—	2	2	4	
Severe	4	3	2	9	
A.R.M.	17	10	10	37	
Section/Hysterectomy ...	1	2	1	4	
Transfusion	16	9	12	37	
Hypertensive or Toxæmic basis	19	14	13	46	
Doubtful origin	10	13	9	32	

Toxic Accidental Hæmorrhage is a very serious disease. In this city, the influence of high multiparity in the ætiology of the condition is apparent. We recognize, in a broad way, three groups of cases :

(*a*) Hypertensive Toxic Accidental Hæmorrhage, in which the patient has suffered from hypertension complicating pregnancy and has developed accidental hæmorrage as a complication.

(*b*) Toxæmic Toxic Accidental Hæmorrhage, in which she has had toxæmia of pregnancy and then develops accidental hæmorrhage.

(*c*) Toxic Accidental Hæmorrhage, of doubtful origin, in which she has been apparently healthy up to the time of sudden onset of accidental hæmorrhage.

Once toxic hæmorrhage occurs, the systemic intoxication, of which the bleeding into and from the uterus is one manifestation, can inflict serious and even irreparable damage upon important organs in a short period of time.

It is obvious, then, that our first effort at reduction of mortality and morbidity must be directed towards prevention. Known toxæmic and hypertensive patients must be observed carefully, so that the early signs and symptoms of accidental hæmorrhage may be recognized and the pregnancy terminated by the most suitable method (Induction or Cæsarean Section). Failure to respond to treatment, backache, abdominal pain and tension, vomiting, rising blood pressure, increasing albuminuria, oliguria, changes in the rhythm of the fœtal heart, vaginal bleeding however slight, etc., must all be seriously noted. Absentees and defaulters from the antenatal clinic must be followed-up. More antenatal beds should be provided. The standard of prenatal supervision must be raised.

When toxic hæmorrhage has occurred, treatment must be started without delay. As the late O'Donel Brown pointed out, the time-lag between the

onset of symptoms in the patient's home and the institution of treatment in hospital must be reduced to a minimum. The resuscitation flying-squad is of special value in this respect. According to the severity of the case, treatment is upon these lines:

Rest; Moderate Warmth; Morphine; Oxygen.
Transfusion of fresh compatible blood.
Splanchnic sympathetic block to counteract renal arteriolar spasm.
Blood pressure raising substance if indicated for the hypotension of shock (methedrine; nor-adrenaline).
Cortisone in selected cases.
Puncture of the membranes if the uterus is reacting.
Cæsarean Section in special cases.
Fibrinogen in the occasionally encountered "hæmorrhagic" case.

As pointed out in previous Reports, there is no scientific basis, so far as we know, for the belief that blood should not be administered in toxic accidental hæmorrhage. Quite on the contrary, there is every reason to give blood in adequate amount; the patient is often seriously anæmic; blood-flow in the brain, myocardium and kidneys is sluggish; the systemic circulation is slowed-down; the fibrinogen content of the blood may be reduced; the actual loss of blood is usually more serious than is apparent. It is very wrong to believe that blood loss in this condition is of no consequence.

TOXIC ACCIDENTAL HÆMORRHAGE—(1592 cases.)

Case No.	Reg. No.	Age	Pregnancy	M.	C. lb. oz.	Notes	Clinical Classification
1	5	27	5	A.	S.B. 4 0	Slight hæmorrhage, pain and albuminuria at 30 weeks. No shock. Spontaneous onset and delivery. Highest B.U. 62 mg. %.	Non-toxæmic; mild.
2	139	44	11	A.	S.B. 3 12	Known hypertensive 180/110–220/120 with albuminuria. Accidental hæmorrhage developed in hospital and was accompanied by moderate shock: transfusion, etc. A.R.M. later; spontaneous.	Hypertensive; moderate
3	212	41	12	A.	S.B. 6 0	Small loss; no shock; A.R.M.; spontaneous.	Non-toxæmic; mild.
4	318	30	2	A.	A. 4 14	Mild hypertension preceded the A.P.H. Transfusion. Spontaneous onset and delivery.	Hypertensive moderate
5	348	23	3	A.	N.N.D. 2 0	Hypertension, albuminuria and casts before 24 weeks. Despite rest, vegolysin, intravenous procaine, etc. B.P. varied, 140/90–180/110 and albuminuria persisted. At 32 weeks, typical accidental hæmorrhage (combined) with some shock. Transfusion. A.R.M.; slow onset, spontaneous.	Nephritic; moderate to severe.

TOXIC ACCIDENTAL HÆMORRHAGE—*continued.*

Case No.	Reg. No.	Age	Pregnancy	M.	C.	Notes	Clinical Classification
					lb. oz.		
6	508	35	1	A.	A. 4 2	Pre-eclampsia of moderate severity at 33 weeks followed by external bleeding. A.R.M., spontaneous.	Toxæmic; mild.
7	739	25	3	A.	A. 6 10	Pre-eclampsia with intrapartum loss and restlessness. Spontaneous.	Toxæmic; moderate
8	876	22	1	A.	A. 7 3	Pre-eclampsia with intermittent slight bleeding in last week of pregnancy. Spontaneous.	Toxæmic; mild.
9	893	20	2	A.	A. 5 8	Pre-eclampsia with bleeding at 36 weeks. Spontaneous.	Toxæmic; mild.
10	936	40	15	A.	S.B. 4 0	Hypertension with superimposed albuminuria and œdema. Slight bleeding with tense and tender abdomen. Spontaneous.	Hypertensive; mild to moderate.
11	1118	29	4	A.	S.B. small	Emergency admission with typical accidental hæmorrhage. Transfusion. Spontaneous.	Non-toxæmic; moderate
12	1334	41	12	A.	S.B. 6 10	*See* Cæsarean Hysterectomy/Hysterectomy, No. 8.	Toxæmic; moderate to severe.
13	1364	28	1	A.	S.B. 4 0	Concealed hæmorrhage, but without marked shock. Transfusion. A.R.M., spontaneous. Normal previous day.	Non-toxæmic; moderate
14	1450	38	9	A.	S.B. 6 0	Combined accidental hæmorrhage. Transfusion. A.R.M.; spontaneous. Also normal up to this.	Non-toxæmic; moderate
15	1479	38	6	A.	S.B. 3 12	Typical combined hæmorrhage at 34 weeks. Transfusion. A.R.M.; spontaneous. Clinical and biochemical signs of cortical necrosis in the puerperium, treated by Bull's method. Condition parlous for some days, but slowly recovered. Urinary infection before discharge one month after delivery.	Hypertensive; severe.
16	1513	37	8	A.	S.B. 3 0	External loss and shock on admission. Transfusion. Spontaneous. Good recovery.	Non-toxæmic; moderate
17	1727	35	3	A.	S.B. 7 0	Typical onset with severe shock. Transfusion. Spontaneous. Good recovery.	Toxæmic; severe.
18	1823	23	1	A.	A. 4 2 A. 4 8	Slight shock and albuminuria with external loss. A.R.M. Twin breeches.	Non-toxæmic; mild to moderate

TOXIC ACCIDENTAL HÆMORRHAGE—*continued.*

Case No.	Reg. No.	Age	Pregnancy	M.	C.	Notes	Clinical Classification
					lb. oz.		
19	1852	21	3	A.	A. 5 10	No shock. Spontaneous with old clot.	Non-toxæmic; mild.
20	1965	31	1	A.	N.N.D. 4 8	Aortic incompetence with enlarged heart, but no decompensation; hypertension; pyelitis and antepartum loss. A.R.M. Spontaneous.	Hypertensive; mild to moderate.
21	2047	34	6	A.	S.B. 6 4	Abdominal pain, small hæmorrhage and albuminuria at 38 weeks. Spontaneous. Transfusion. Goitre.	Non-toxæmic; moderate
22	2115	37	4	A.	S.B. 6 8	Typical onset at term. Transfusion (2 pints). A.R.M. Spontaneous.	Toxæmic; moderate

TOXÆMIA OF PREGNANCY AND ALLIED CONDITIONS (3 YEARS: 1950, 1951, 1952).

Condition	No. of cases	Primigravidæ	Multiparæ	Maternal Mortality	Babies survived	Induction by "stripping" A.R.M. or bougies	Cæsarean Section	Hysterectomy	No. transfused
Pre-eclampsia, all degrees of severity	465	206	259	2	433*	71	38	1	27
Eclampsia ...	20	13	7	2	17†	3	0	0	1
Hypertension and Hypertension with superimposed toxæmia	111	23	88	0	89	22	9	0	5
Nephritis, acute and subacute ...	2	1	1	0	2	1		0	0
Nephritis, chronic	8	3	5	0	3	1	0	0	0
Toxic Accidental Hæmorrhage, all degrees of severity	78	10	68	3	35*d*	37*d*	3	1	37
TOTALS ...	684	256	428	7**	579	135	50	2	70

*26 extra twin fœtuses.

†1 extra twin fœtus.

*d*1 extra twin fœtus Some were in labour when membranes punctured.

**more than 40% of *all* maternal deaths (7–17 in the three years).