SURGICAL COMPLICATIONS DURING PREGNANCY

by

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Common symptoms of pregnancy such as vomiting and abdominal pain may be met with due to an independent non-obstetric surgical condition arising during pregnancy. Therefore, there is a possibility of the condition being missed and the symptoms wrongly attributed to the pregnancy itself. Surgical complications during pregnancy are being increasingly reported, firstly because of the large number of surgical operations which have the tendency to produce bands and adhesions. Again, with improved obstetric care more cases are being brought to light.

Another important aspect of the problem is that maternal mortality from surgical conditions during pregnancy may form only a small fraction of the maternal mortality rate. But, with advance of obstetric knowledge and with availability of better antenatal care the death rate due to obstetric causes comes down and then this small fraction assumes importance and its prevention becomes mandatory.

With the awareness of above factors and with an open mind to accept the dual diagnosis, a total of 80 cases of surgical complications met with during pregnancy among 54,238 obstetric admissions at Government Maternity Hospital, Hyderabad, over a period of 5 years (1961-65) are analysed for this paper.

For presentation the cases were divided into six groups viz.

I Gastro-intestinal tract conditions.
II Gynaecological disorders.
III Vascular accidents.
IV Orthopoedic conditions.
V Urinary tract lesions.
VI Miscellaneous conditions.

Acute gastro-intestinal conditions (Table II) form one of the major surgical complications of pregnancy. Incidence of intestinal obstruction according to Smith Bartlet (1940) is only one case among the 66,431 deliveries at Boston Lying-in Hospital. According to Hansen up to 1941 there were only 84 cases reported. Bellingham, Mackay and Winston (1949) from the Women's Hospital, Sydney, reported 0.34 cases per 1000 deliveries. In this series there were 5 cases

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TABLE I
Complications needing surgical intervention

Groups	Condition	Numbers	Incidence
I	Acute gastro-intestinal conditions	15	1 : 3757
II	Gynaecological disorders	46	1 : 1225
III	Vascular accidents	5	1 : 11273
IV	Orthopoedic conditions	7	1 : 8052
V	Urinary tract lesions	1	1 : 56369
VI	Miscellaneous	6	1 : 9395

TABLE II
Acute gastro-intestinal conditions

Type of lesion	No.
Mesenteric vein thrombosis	4
' Pregnancy ileus '	3
Volvulus of pelvic colon	1
Internal herniation of small bowel	1
Round worm obstruction	1
Appendicitis	2
Intestinal obstruction : unknown cause	3

among 54238 obstetric admission, which were presenting as intestinal obstruction.

There were 3 cases of pregnancy ileus which is supposed to be a localised obstruction without any organic basis. The paralysis here is supposed to be the result of loss of smooth muscle tone due to the action of progesterone and relaxin. The paralysis begins in the sigmoid colon and is confined to the large bowel, the transverse and descending colon becoming immensely distended. The abdomen is silent and there is no evidence of peritonitis, and they recover usually after conservative treatment.

As far as appendicitis is concerned the incidence quoted by different authors varies from 0.1% to 2%. In this series we had two cases. Eighty per cent of the reported cases are in the first six months of pregnancy. The foetal mortality and the maternal mortality increase if peritonitis develops. Babler (1908) said that 'the mortality of acute appendicitis complicating pregnancy is the mortality of delay.'

There were 7 maternal deaths among these 15 cases giving an incidence of 46.6 per cent (Table III).

TABLE III
Treatment: Gastro-intestinal Tract

Type of treatment	No.	Result	
Symptomatic treatment	6	Relieved	3
		Died	3
Laparotomy done	7	Died	4
		Cured	3
Conservative treatment for appendicitis	2	Relieved	2

TABLE IV
Analysis of Gynaecological Disorders

Lesion	No. of cases
Genital prolapse	16
Uterine myomata	11
Cervical carcinoma	10
Ovarian tumours	8
Torsion of fallopian tube	1
Total	46

Table IV shows analysis of gynaecological disorders. The incidence of genital prolapse in this series is more than that reported by different authors. But other cases with prolapse having early pregnancy are those which were discharged before delivery and are not included in this series and if these are considered the incidence will be still higher.

In cases with hypertrophic elongation it was observed that the cervix failed to dilate during labour due to the excess of fibrous tissue it contains. In 2 cases of utero-vaginal prolapse caesarean section was done because of ulceration and marked congestion of cervix.

The incidence of myomata during pregnancy as reported varies from 0.3 per cent to 7.2 per cent, Grandin (1949), Parke and Bonter (1952). Most of the authors recommend a conservative approach towards the fibromyomata during pregnancy. Roques (1955) aptly says "we have ample reason for folding our surgical hands until term approaches." The abortion rate after myomectomy is about 34.3%, as quoted by Davids, (1952), 54% by Childs (1944) and 42% Roques (1955). Then the other problem is the choice of mode of delivery after the myomectomy.

Out of the 11 fibroids detected during pregnancy 5 were found to be undergoing red degeneration (Table v).

The incidence of cancer cervix with pregnancy greatly varies according to the availability of facilities for early and definitive diagnosis, of the condition during pregnancy. The

TABLE V
Pathological changes in fibromyomata

Pathological change	No of cases	Treatment	
Red degeneration	5	Conservative	4
		Surgical	1
Infection	2	Conservative	2
No change	4		

point which needs stressing here is the presenting symptoms with which the patients comes. Out of 10 cases, 7 complained of painless bouts of bleeding, and during examination a suspicion of cancer was aroused on speculum examination (Table VI).

TABLE VI
Pregnancy: cancer cervix— presenting symptom

Presenting symptoms	No of cases
Haemorrhage: simulating A.P.H.	7
Irregular bleeding per vaginam	1
Bleeding after coitus	1
No symptom	1

The management of cervical cancer during pregnancy has aroused opinions that are varied and recommendations that are conflicting. Diagnosis with positive exclusion of the "pregnancy changes" and conclusive elimination of microscopic invasion is of first importance.

Ovarian tumours complicating pregnancy present a challenging problem. The reported incidence requiring surgical intervention varies from 1:80 to 1:1000. We had 8 cases in our series, requiring surgical intervention (Table VII).

TABLE VII
Complications in 8 cases of ovarian swelling

Complications	No of cases
Torsion	5
Impaction and obstruction of labour	2
Severe pain due to rupture (C. L. Cyst)	1

Unless dictated by complications the present consensus of opinion regarding the removal of ovarian tumour is, it should be deferred until the middle trimester of pregnancy (Table VIII).

TABLE VIII
Effect of ovariotomy on pregnancy

Time of ovariotomy	No.	Result
First trimester	1	Aborted.
Second trimester	5	Pregnancy continued.
Third trimester	2	-do-

For centuries it was the common belief that symphysis pubis opened during labour to permit the passage of foetus. Radiological studies were made by Cock and Mangert. The incidence varies from 1:100 (Hingorani—1961) to 1:31,333 (Kasper—1903) (Table IX).

TABLE IX
Emergency orthopaedic conditions

Type of lesion			No.
Separation of symphysis pubis			3
Fractures	Neck of femur		1
	Pubic rami		1
Dislocations	Hip joint	1	
	Shoulder joint	1	3
	Jaw	1	

We had three cases and all were recognised after 24-48 hours of delivery. Dislocations were seen in three of eclampsia patients and were reduced within 24 hours.

TABLE X
Miscellaneous conditions

Condition	No.
Lympho-sarcoma, ileum	1
Primary carcinoma of liver	1
Lung tumour	1
Cancer breast, stage IV	1
Retroperitoneal lympho-sarcoma ..	1
Peri-nephric abscess	1
Total	6

The cases in table 10 were referred to general surgeons for future treatment (Table X).

Conclusions

From this study it can be concluded that

1. the incidence of surgical complications during pregnancy is on an increase.
2. the obstetrician should have an open mind with every case having any suggestive symptoms.
3. The maternal and foetal mortality is increased by some of the acute conditions. So they should be recognised early and treated.
4: Further detailed studies should be undertaken for each of the problems individually.

Summary

1. A total of 54238 obstetric admissions to Govt. Maternity Hospital, Hyderabad are analysed.
2. Eighty cases had surgical complications, giving an incidence of about 1:7000.

3. Commonest gastro-intestinal lesion was mesentric thrombosis and next pregnancy ileus. Treatment of these is discussed.

4. Among gynaecological disorders genital prolapse was commonest, mode of delivery in these conditions is discussed.

5. Presenting symptoms of cancer cervix with pregnancy are stressed.

6. Miscellaneous conditions met with are also mentioned.

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