

PITFALLS IN THE DIAGNOSIS AND MANAGEMENT OF ECTOPIC PREGNANCY

(A Critical Study of 126 Cases)

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The unquenching desire for motherhood is eternal, universal and inherent in every woman. Ectopic pregnancy pollutes this perfection, the worst of it being the seriousness and risk to the mother's life. Tubal gestation presents itself in a variety of ways causing difficulties in its diagnosis and management. The present study aims at a careful analysis and evaluation of various diagnostic criteria. It also reflects on the management of such cases in the light of recent trend of conservative surgery.

The incidence of ectopic gestation in the present series was found to be 1: 196 pregnancies. The age group ranged from 18 to 42 years with an average of 29.1 years. Parity varied from 0 to 8. There were, however, 26 nulliparas, 3 of these had history of one previous abortion eight months,

six years, and 20 years back. (Table I).

The incidence of 1:196 reported in the present series is slightly higher than that reported by Eastman (1950), Schumann (1918) and Campbell. This possibly may be due to better control of gonococcal infection in the United States. It is interesting to note that 23 cases started their obstetric career with an ectopic pregnancy. Eastman (1961), Munro Kerr (1964) and Frank (1961) are of the opinion that there is no specific relationship between parity and ectopic. In the present series before ectopic, primary sterility was reported in 26 cases (20.63) and secondary sterility in 65 i.e. (51.58%). The average interval from the last child born was 5.6 years, with a range from eight months to twenty years. This prolonged period of sterility, therefore, assumes an important place in the diagnostic criteria.

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Paper read at the 14th All-India Obstetric and Gynaecological Congress held at Nagpur on 26/28th November 1967.

Symptoms:

As is evident from table II, the typical trio of symptoms i.e. amenorrhoea, pain and bleeding was present

TABLE I
Comparative Incidence and Analysis of General Features

Year	Author	Incidence
1918	Schumann	1 : 303 pregnancies
1950	Eastman	1 : 300 "
1955	Upadhya	1 : 296 "
1957	Poddar	1 : 167 "
1965	Greenhill	1 : 80 "
1967	Heera and Rosario	1 : 180 "
1967	Present series	1 : 196 "

Factors	Mean	Range
Age	29.1 years	18-42 years
Parity as a whole	2.47	0-8
Parity after excluding nulliparas	3-14	1-8
L. C. B.	5.6 Years	8 months-20 years
Sterility	91 cases	72.22 %
(a) Primary	26 cases	20.63 %
(b) Secondary	65 cases	51.58 %

TABLE II
Analysis of signs and symptoms

Symptoms & Signs	No. of cases	% incidence
Anaemia	110	87.3
Typical Trio	48	38.9
Pain	109	86.57
Amenorrhoea	91	72.2
Bleeding	87	69.04
Lump+pain	10	8
Decidual Cast	3	2.3
Distension of abdomen	1	.9
Bulging in one fornix	36	28.5
Bulging in fornix + post. pouch	46	36.5
No mass	23	18.26
Vague Mass	21	16.6
Cervical mobility tenderness	115	92
Culdocentesis-true positive	74	82.2
False positive	4	4.4
False negative	13	13.3

only in 38.9%. This indicates that more cases present in an unorthodox way than the typical. Pain was the frequent and constant symptom and was complained of by 86.5%. Vaginal bleeding was conspicuously absent in 30.96% which makes roughly one third of the cases. In 7% the bleeding was like a menstrual discharge, while in the remaining 62.1% cases the typical brown

discharge was present. Winston and De Alvarez (1961) have also reported absence of bleeding in 15.8% and 27.78% of their cases. Anaemia was another frequent finding, being found in 87.3%. The lowest value of haemoglobin recorded was 2 gms%. A single haemoglobin estimation could be misleading in evaluating the pati-

ent's true status, which may prove another pitfall.

The uterus was found to be of normal size in 57.1% while in the remaining the size ranged from 6-8 weeks of pregnancy. A definite mass could be found in the fornix in 65% of cases, while in 16.6% of cases only a vague lump was palpable. 18.2% of cases did not appear to give a suggestion of ectopic on routine clinical examination—a large number which may mislead the clinician and where complacency may be fatal.

Cervical Mobility Tenderness:—Tenderness on cervical mobility was found to be present in 92% cases of the present series. This single positive finding along with history of the patient was found to be of immense value in establishing the diagnosis of ectopic pregnancy. A review of literature from India and abroad does not reveal any mention of this sign. The authors are of the opinion that this sign per se should be regarded as an important diagnostic aid and should be adopted in day to day teaching of obstetrics.

Culdocentesis:—This was performed in 90 cases only and the results obtained were true positive in 82.2%, false positive 4.4% and false negative 13.3%. It may be worth while to mention that in all but one of the false negative cases, cervical mobility tenderness was present. This led us to do a laparotomy, and to our surprise they all turned out to be ectopic. False negative aspiration may, therefore, be very misleading. Russel *et al* (1961) and Hutchinson (1961) report positive aspiration in 88.6% and 84.3% respectively. It may, however, be noted that positive culdocentesis only indicates haemoperitoneum and, therefore, could be negative in unruptured cases. The possibility of false positive results due to puncture of corpus luteum, haemorrhagic cyst and needle entering a vessel should also be kept in mind.

Termination: The most common end result was tubal rupture in 72.5% cases, while tubal abortion was noted in 16.9% cases. The series also includes 2 cases of

TABLE III
Site and termination

Site of Ectopic	No. of cases	Incidence %	Termination		
			Type	No.	%
Tubal	113	86.68	Rupture	82	72.56
			Intact	20	17.69
			Complete abortion	15	13.27
			Incomplete abortion	5	4.42
			Tubal erosion	1	.88
Secondary abdominal ..	6	4.47	Rupture of tube ..	5	
Primary abdominal ..	1	.79	Pregnancy change ..	1	
Ovarian	1	.79	Ruptured		
Cornual	2	1.58	Both ruptured		
Angular	1	.79	Ruptured		
Rudimentary horn ..	2	1.58	Ruptured	1	
			Intact	1	

TABLE IV
Surgical treatment

Surgical treatment	No. of cases	% incidence
Total unilateral salpingectomy	62	49.2
Partial unilateral salpingectomy	10	7.9
Partial salpingectomy + salpingostomy of same side	9	7.14
Salpingo-oophorectomy	27	21.42
Salpingotomy and repair of tube	4	3.16
Milking of products	1	.79
Salpingectomy and removal of secondary abdominal pregnancy	6	4.74
Removal of primary abdominal pregnancy	1	.79
Excision of cornu with same tube and ovary	2	1.58
Excision of rudimentary horn with same side tube and ovary	2	1.58
Partial excision of ovary with gestation secondary and reformation	1	.79
Excision of cornu of uterus and repair	1	.79
Blod transfusion	85	72.2
Auto-haemo transfusion	6	

TABLE V
Associated findings at laparotomy

Other findings at laparotomy	No. of cases	Surgery on other adenexa, uterus etc.	No. of cases
Biocornuate uterus	3	No surgery	36
Uterus with rudimentary horn	2	Ligation of tube	21
Fibroid uterus	2	Total salpingectomy	15
Prolapse uterus	1	Partial salpingectomy	7
Ovarian cyst on other side	2	Salpingolysis	18
Par-ovarian cyst	1	Salpingostomy	15
Finbrial cyst on other side	3	Salpingolysis + salpingostomy	12
Acute milliary tuberculosis	3	Removal of para ovarian cyst	1
Old treated tuberculosis	1	Myomectomy	2
Inflamed appendix	Appendicectomy	2
		Ventri-suspension	28

cornual pregnancy, one of angular and one of ovarian pregnancy. All came to the hospital after rupture.

Unilateral tubectomy was the commonest operation performed (49.2%), partial tubectomy was attempted in 15.04%, while salpingo-oophorectomy was done in only 21.4%. Conservative surgery was attempted only in 3.95%. A follow up of our cases in which tubectomy alone was done, did not reveal an increased incidence of ectopic on the other side in comparison to those in which salpingo-oophorectomy was done. Our ex-

perience, therefore, differs from Jeffcoate who thinks that salpingo-oophorectomy is superior. We feel that if possible as much of the affected tube should be preserved as feasible. This may give her a better chance of future uterine pregnancy. We also do not agree that salpingo-oophorectomy of the affected side as compared to salpingectomy alone would enhance the chances of a successful pregnancy by 100%, for we feel that this would incidently also increase the chances of ectopic pregnancy in the remaining tube as tubal infections are usually bilateral.

The incidence of repeat ectopic pregnancy in the series was found to be 2.3% while the over-all pregnancy rate after first ectopic was 30.5%.

Circumstances due to nonavailability of matching blood and extreme antipathy of patient's relatives to donate blood forced us to give auto-haemo-transfusion in 6 cases. This was only possible where there was fresh rupture. As much as 700 cc. of filtered blood was given. It was only in one case that a mild reaction was observed after such transfusion. Auto-haemo-transfusion could prove life saving when suitable blood is not available.

Tuberculosis and Ectopic: Four cases in the present series were found to have associated genital tuberculosis. Three of these presented a miliary form. Vehaskari (1963) and Robert (1964) have also reported the occurrence of tubal pregnancy associated with miliary tuberculosis. The incidence of ectopics in tubal tuberculosis is liable to increase in our country as more and more of the affected female population is covered by anti tubercular treatment. Halbrecht (1957) opines that one in 4 pregnancies in treated tuberculosis cases may be ectopic.

In the end we wish to emphasize once again that the diagnosis of an ectopic pregnancy is associated with a number of pitfalls because of varying presenting symptoms and inconstant findings. The present study has convinced us about the importance of cervical mobility tenderness test in the diagnosis. Also haemoglobin concentration in a recently ruptured case does not depict the true status of the patient. A low haemo-

globin figure in a general way should not contraindicate immediate surgical interference. The general condition of the patient improves considerably on closure of parietal peritoneum.

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