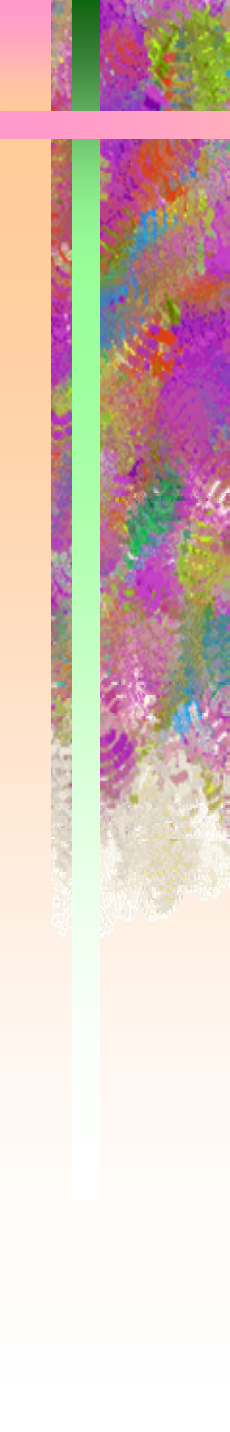




Ectopic pregnancy

Incidence, Morbidity & Mortality

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Introduction:

Ectopic pregnancy is defined as a pregnancy in which implantation occurs outside the endometrium and endometrial cavity i.e in the cervix ,uterine tubes , ovaries abdominal or pelvic cavities.



Incidence of ectopic pregnancy:

- **The crude rate of ectopic pregnancy per 1000 reported pregnancies rose**
 - **from 5.8 to 11.1 during 1962-1977 in Sweden,**
 - **from 5.7 to 9.3 during 1971 –1980 in Canada,**
 - **from 4.5 to 16.8 during 1970-1987 in USA, and**
 - **from 3.22 to 5.9 during 1968-1974 in Norway.**
- **This trend put ectopic pregnancy as a major health problem in western countries in the period 1960`s-1980`s.**

Mortality

**the mortality from ectopic pregnancy
decreased from 72 –90 % in 1880 to
0.14 % in 1990**



Morbidity in ectopic pregnancies

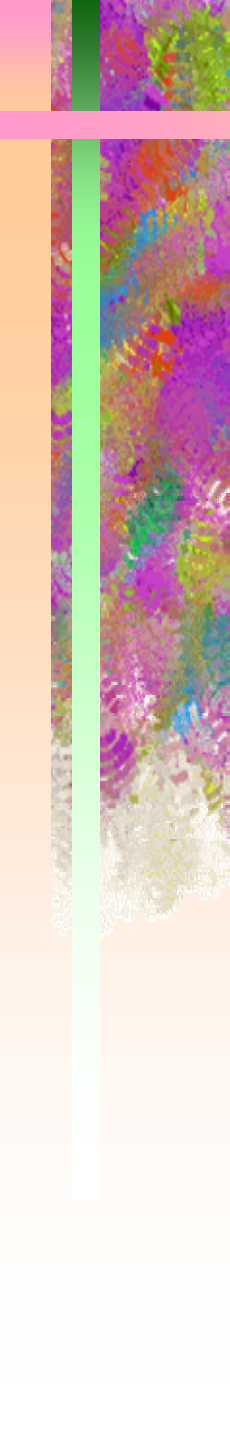
- **Ectopic pregnancy is responsible for thousands of hospital admissions, surgical interventions and blood transfusions.**
- **Epidemiological studies of the incidence and morbidities due to ectopic pregnancy in 1990s are therefore important to estimate the burden of this condition so that the planning of medical care and public health policies can be better informed .**



Objectives :

To review the literature on

- 1. Incidence of ectopic pregnancy in different settings**
- 2. The morbidity and mortality due to ectopic pregnancy**



Methodology :

A literature review using Medline to identify relevant literature search for titles and abstracts were ectopic pregnancy, tubal pregnancy, extra uterine pregnancy together with, incidence, morbidity and mortality.

The search was restricted to literature published between 1990-2001 and studies that provided information on the incidence, morbidity and mortality.

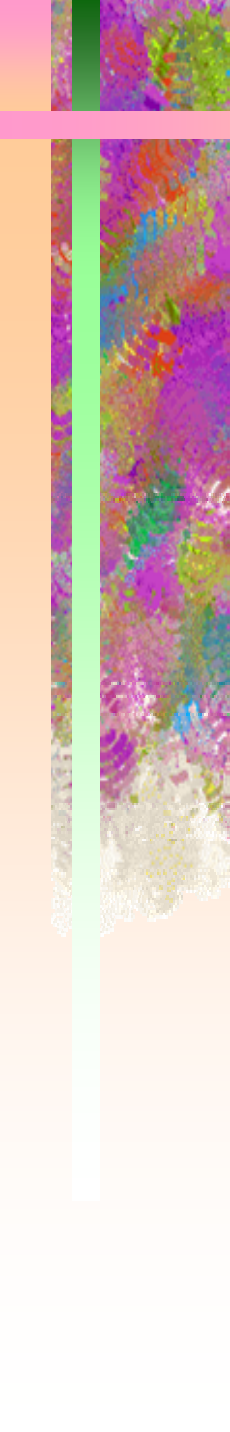


Results :

A literature search for E.P revealed in the first instance 63 reports. After restriction of the duration of the study period to between 1990-2001 to have knowledge on the more current state and trends many studies were excluded.

Also, others were found to be irrelevant because they were studying the incidence of certain risk factors or the percentage due to the site of rupture or age groups.

Rare sites of implantation were not included they were reported only or most commonly as case reports so when we speak of ectopic pregnancy we refer to tubal pregnancy .



Results :

Almost all of the studies were retrospective, either population or hospital based cross sectional studies except the French which is a prospective cross sectional study

The setting in the studies reviewed represent national, regional and sometimes institutional numbers

Studies using the same denominator are presented together to achieve comparability as far as possible.

Results : Incidence of Ectopic Pregnancy per 100 Reported Pregnancies

Country	Type of study	Setting	Time	Incidence of ectopic/100 reported pregnancy
England & Wales	Retrospective	Population based	1994-1996	1.24
Hungary	Retrospective	Population based	1995	0.64
France	Prospective	Hospitals based	1992	1.58
Ireland	Retrospective	Hospital based	1996	0.83
USA	Retrospective	Population based	1992	2.0
Mexico	Retrospective	Hospital based	1992-1995	2.06
Pakistan	Retrospective	Hospital based	1997-1999	1.3

Results : Incidence of ectopic pregnancy per 100.000 women aged 15-44

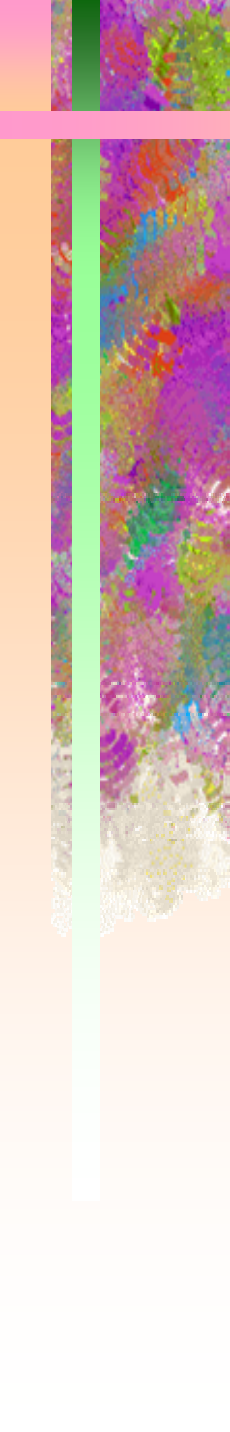
Country	Type of study	Setting	Time	Incidence of ectopic pregnancy/100.000women aged 15-44
Finland	Retrospective	Population based	1994	155
Norway	Retrospective	Hospital based	1988-1993	154
Sweden	Retrospective	Population based	1991	149

Results : Incidence of ectopic pregnancy per number of delivery

Country	Type of study	Setting	Time	Incidence of ectopic pregnancy/No. of delivery
China	Retrospective	Hospital based	12years	1:52
India	Retrospective	Institutional based	1988-1993	1:160

Results : Incidence of ectopic pregnancy /1000 delivery

Country	Type of study	Setting	Time	Incidence of ectopic preg. /1000 delivery
UK	Retrospective	Institutional based	1990-1994	5.9
Saudi Arabia	Retrospective	Hospital based	3&half year	7.4
Ghana	Retrospective	Hospital based	1991-1993	39.3
Cameroon	Retrospective	Hospital based	1992	11.0



Results :

Summary of the incidence per denominator

Incidence	Denominator
0.6-2	100 reported pregnancy
6-40	1000 delivery
1:52-160	1: number of delivery
149-155	100.000 women aged 15-44

Results :

Trends of Ectopic Pregnancy in some countries per 1000 women aged 15-44 and per 1000 pregnancies

Country	year	No. of ectopic per1000	year	No. of Ectopic per1000	year	No of Ectopic per1000
Finland	1984	1.59	1988	1.76	1994	1.55
Sweden	1988-1989	1.73	1990	1.68	1991	1.49
England & Wales	1981-1985	6.13	1989-1993	11.7	1994-1996	12.4
Ireland	1986	1.8	1995	4.8	1996	8.3

N.B the rate for 1&2 calculated per 1000 women aged 15-44 & for 3&4 per 1000 pregnancy

Results : Ruptured Ectopic Pregnancy Related Morbidity

Country	Transfusion	Days of hospital stay
USA (Mortimer, Victoria & Davis Jewish hospitals)	17.5 %	6.4(+/-)2.3
USA(Cleveland)	22.6 %	2.3(+/-)1.9
USA(Georgia)	8.6 %	
Pakistan		8
Ghana	0.54 units/patient	6-21



Results : Morbidity

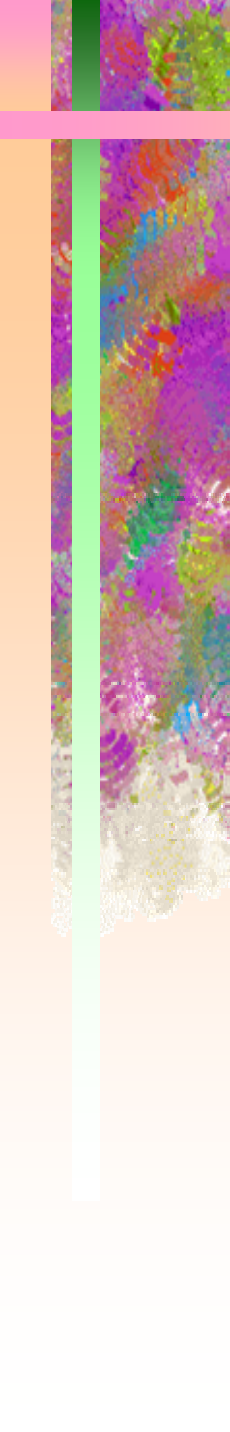
- **Cameroon: 45.1 % had severe haemorrhage and 25 cases out of 144 treated required blood transfusion**
- **Saudi Arabia: the percentage of transfusion was 15 %**

Results : Ectopic Pregnancy Mortality Rate

Country	year	MORTALITY RATE
Sweden	1988-1991	0.15/1000
China	12 years study	Zero
USA	1992	9 % *
France	1992	Zero
Pakistan**	1997-1999	Zero
Ghana	1991-1993	27.9/1000
Dakar	1995	2.65

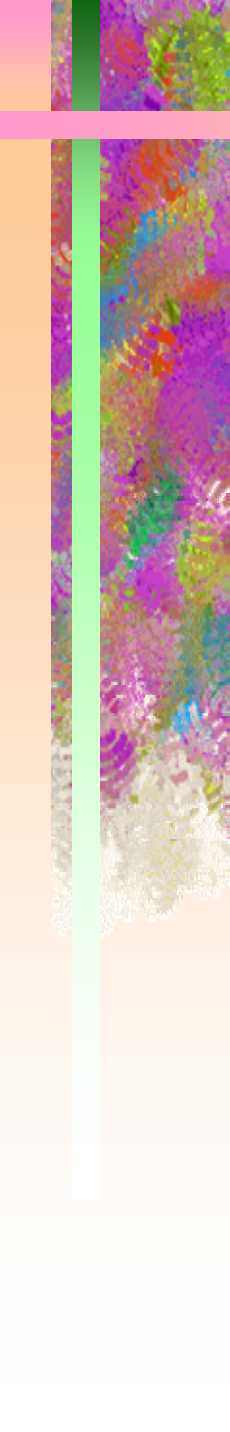
*Calculated from all pregnancy related deaths(8)

**Zauddin medical university hospital(10)



Conclusion:

- **There is no marked difference in the incidence of ectopic pregnancy between the groups reviewed except Ghana**
- **The incidence of ectopic pregnancy is comparable in most settings at around 1-2/% of reported pregnancies**
- **The over all trend increased in 1980s and then stayed or decreased in parts in the 1990s while it is still rising in so many parts of the world**



Conclusion:

- **In developing countries the majority of patients are diagnosed after rupture of the tube**
- **Ruptured ectopic pregnancy is associated with significant morbidity, around 20% will require transfusion and most will spend 6-7 days in hospital or even more**
- **The mortality rate is absent or very low in most of the countries but it can be as high as 28% in settings where the transport facilities are poor and diagnosis and intervention are delayed**