Assessment of pregnancy related complications: A clinical study

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Abstract

**Background:** Acute complications of pregnancy can appear in all trimesters; their diagnosis and management are great challenges. The present study was conducted to determine complications and outcomes of pregnancy.

**Materials & Methods:** The present study was conducted on 128 pregnant women visited to the department in last 6 months. In all a thorough clinical examination was done. All women were investigated for different risk factors like anticardiolipin antibodies, antiphospholipid antibodies for antiphospholipid syndrome, blood sugar level for screening of diabetes, serum FSH, LH ratio and serum fasting insulin level.

**Results:** Patients <20 years were 30, 20-30 years were 78 and >30 years had 10. The difference was significant (P<0.05). Parity of patients was primi seen in 24, para 1-3 in 48 and >3 in 56. The difference was significant (P<0.05). Common complications seen were abortion in 12, ectopic pregnancy in 4, gestational trophoblastic disease in 7 and hypermesis gravidarum in 8. The difference was non-significant (P>0.05).

**Conclusion:** Pregnancy related complications are commonly seen in most of pregnancies. Most common complication was abortion.

**Keywords:** Complications, hyperemesis gravidarum, pregnancy

1. **Introduction**

Antenatal care (ANC) is intended to detect and treat or prevent complications of pregnancy. Common complications include ectopic pregnancy, abortion, gestational trophoblastic disease, hyperemesis gravidarum, toxemia (pregnancy induced hypertension PIH), precursor of eclampsia, diabetes, infections, anemia and birth defects/chromosomal anomalies [1].

Acute complications of pregnancy can appear in all trimesters; their diagnosis and management are great challenges. Factors affecting pregnancy outcome are socioeconomic status, smoking status and other health related conditions and behaviours. Common risk factors are extreme of age, multiparity, different medical problems like Diabetes mellitus, hypertension, infection, genetic factors, polycystic ovarian syndrome, thyroid disorders, autoimmune disorders and antiphospholipid syndrome [2].

Abortion is the most common complication encountered during early pregnancy. It has serious impact on the life of women as well as its consequences like depression and anxiety. The treatment; either expectant management, vacuum aspirator, surgical emptying of uterus has its own complications. Nausea and vomiting in pregnancy (NVP), commonly referred to as morning sickness, typically begins between the fourth and seventh week after the last menstrual period. It is characterized by nausea and vomiting that occurs more frequently during the morning hours and typically resolves in the second trimester. NVP affects most pregnant women. Hyperemesis gravidarum is the most severe form of NVP and is characterized by persistent vomiting, volume depletion, ketosis, electrolyte disturbances, and weight loss [3].

In pregnant women, iron deficiency anaemia is defined as haemoglobin below 110 g/L (<11 g/dL). Pregnancy increases demand for iron with a net loss of 680 mg of iron in 9 months or approximately 2.5 mg per day. Iron deficiency during the first 2 trimesters is associated with an increase in pre-term delivery and low birth-weight babies [4]. The present study was conducted to determine complications and outcomes of pregnancy.
Materials & Methods
The present study was conducted in the department of Gynaecology. It comprised of 128 pregnant women visited to the department in last 6 months. All were informed regarding the study and written consent was obtained. Ethical clearance was taken prior to the study. General information such as name, age, gender etc. was recorded. In all a thorough clinical examination was done. All women were investigated for different risk factors like anticardiolipin antibodies, antiphospholipid antibodies for antiphospholipid syndrome, blood sugar level for screening of diabetes, serum FSH, LH ratio and serum fasting insulin level. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

Results

Table 1: Age wise distribution of patients

<table>
<thead>
<tr>
<th>Age group (Years)</th>
<th>Number</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>78</td>
<td>0.01</td>
</tr>
<tr>
<td>&gt;30</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that patients <20 years were 30, 20-30 years were 78 and >30 years had 10. The difference was significant (P<0.05).

Table 2: Parity wise distribution of patients

<table>
<thead>
<tr>
<th>Parity</th>
<th>Number</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primi</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Para 1-3</td>
<td>48</td>
<td>0.05</td>
</tr>
<tr>
<td>&gt;3</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that parity of patients was primi seen in 24, para 1-3 in 48 and >3 in 56. The difference was significant (P<0.05).

Graph 1: Types of early pregnancy complications in patients

Graph 1 shows that common complications seen was abortion in 12, ectopic pregnancy in 4, gestational trophoblastic disease in 7 and hypermesis gravidarum in 8. The difference was non-significant (P>0.05).

Discussion
Ectopic pregnancy increased in industrialized countries during 1970s and 80s, and declined in 1990s. Risk factors are PID (chlamydia), sterilization (15-20% of sterilization failures are ectopic), increased age at first pregnancy (increased ectopics with age), improved early diagnosis (hCG and ultrasound), IUD use and ovulation induction [5]. Hypertension in pregnancy can be pre-existing hypertension before pregnancy or < 20 weeks gestation: 3-5% of pregnancies), pregnancy associated hypertension (PAH) >20 weeks; no proteinuria; ~6-7% of pregnancies, pre-eclampsia, hypertension with proteinuria 5-6% of pregnancies, superimposed hypertension. 25% of women with pre-existing hypertension develop pre-eclampsia and eclampsia, convulsions in a woman with hypertension and proteinuria [6]. The present study was conducted to determine complications and outcomes of pregnancy.

We found that patients <20 years were 30, 20-30 years were 78 and >30 years had 10. Parity of patients was primi seen in 24, para 1-3 in 48 and >3 in 56. Wamwana et al. [7] found that out of a 204 total admissions, 115 (56.37%) patients had different early pregnancy complications. Their mean age was 29.4±6.8 years. Commonest complications found were abortion in 88 (76.52%) cases. The underlying risk factors found in abortion were antiphospholipid syndrome in 5 (5.68%) cases, Diabetes mellitus in 8 (9.09%) cases, hypertension in 16 (18.18%) cases, and polycystic ovarian syndrome and infection in 11 (12.5%) cases each. Most of the cases 69 (60%) were treated by minor surgical procedures, and 22 (19.13%) cases responded with conservative medical therapy. Outcome were anemia in 92 (79.3%) cases, psychological upset in 72 (62.1%), infection in 45 (44%) cases and coagulopathy in 9 (7.8%) cases.

In this study, common complications seen was abortion in 12, ectopic pregnancy in 4, gestational trophoblastic disease in 7 and hypermesis gravidarum in 8. Hemminki E et al. [8] found that out of 38,151 newborn infants, 713 (1.9%) had mothers who had severe migraine during pregnancy; 68% were medically recorded. Pregnant women with severe migraine had a higher prevalence of pre eclampsia and severe nausea/vomiting, but a lower occurrence of threatened abortion and preterm delivery. However, mean gestational age and birth weight, as well as the proportion of low birth weight and preterm births, were similar in newborn infants born to mothers with or without migraine. Jaleel R [9] conducted a study and found that polycystic ovarian syndrome was another high risk factor found in abortion (12.5%). Pregnancy failure in cases of polycystic ovarian syndrome is because of excessive androgens or obesity. Hypermesis gravidarum is a frequent pathology and can be the cause of serious neurological complications. Early vitamin supplementation is helpful in pregnancy-related hyperemesis. Risk factors for pre-eclampsia and eclampsia are previous pre-eclampsia, nulliparous, paternal factors (some men increase risk), genetic factors, familial history, calcium deficiency, history of spontaneous abortion, African American (nulliparous only), higher body weight, ovum donation and smoking [10].

Conclusion
Pregnancy related complications are commonly seen in most of pregnancies. Most common complication was abortion.

References

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Centres for Disease Control and Prevention. 1995.