

Results

The following tables represent the obstetric emergencies in the Department of Obstetrics and Gynecology in Benha University Hospital through years 2006 , 2007 and 2008 .

Table (1) shows the incidence of the obstetric emergencies in Benha University Hospitals.

| Year | Total admission | Number of obstetric emergency cases | Incidence of obstetric emergencies | Mean number of cases /day |
|---------|-----------------|-------------------------------------|------------------------------------|---------------------------|
| 2006 | 5572 | 4670 | 83.8% | 12.7 |
| 2007 | 5595 | 4615 | 82.4% | 12.6 |
| 2008 | 6040 | 5230 | 86.5% | 14.3 |
| overall | 17207 | 14515 | 84.3% | 13.2 |

In 2006 ,the obstetric emergencies were 83.8% of total admissions with a mean of 12.7 cases per day .While in 2007 ,the obstetric emergencies were 82.4 % of the total admission with a mean of 12.6 cases per day .While in 2008 ,the obstetric emergencies were 86.5% of the total admission with a mean 14.3 cases per day. Overall the obstetric emergencies constituted 84.3% of total admission with a mean 13.2 cases per day through years 2006 ,2007 and 2008.

Table (2):Types and Incidence of obstetric emergencies admitted to Benha University Hospitals .

| Diagnosis | 2006(N=4670) | | 2007(N=4615) | | 2008(N=5230) | | Overall |
|-------------------------------------|--------------|-------|--------------|-------|--------------|--------|---------|
| | No | % | No | % | No | % | |
| Deliveries | | | | | | | |
| Vaginal deliveries | 2670 | 57.1% | 2551 | 55.2% | 2762 | 52.8% | 54.9% |
| Cesarean sections | 1285 | 27.5% | 1282 | 27.7% | 1706 | 32.6% | 29.4% |
| Total | 3955 | 84.6% | 3833 | 83% | 4468 | 85.4% | 84.4% |
| Hypertensive disorders of pregnancy | | | | | | | |
| Preclampsia | 71/4142 | 1.7% | 74/4039 | 1.8% | 95/4712 | 2% | 1.8% |
| Eclampsia | 18/4142 | 0.43% | 20/4039 | 0.49% | 25/4712 | 0.53% | 0.48% |
| G/hyper | 6/4142 | 0.14% | 9/4039 | 0.22% | 9/4712 | 0.19% | 0.18% |
| Total | 95/4142 | 2.3% | 103/4039 | 2.5% | 129/4712 | 2.7% | 2.5% |
| Ante partum hemorrhage | | | | | | | |
| Accidental hemorrhage | 12/4142 | 0.28% | 17/4039 | 0.4% | 13/4712 | 0.27% | 0.3% |
| Placenta previa | 45/4142 | 1% | 50/4039 | 1.2% | 60/4712 | 1.2% | 1.2% |
| Total | 57/4142 | 1.3% | 67/4039 | 1.6% | 73/4712 | 1.5% | 1.5% |
| Abortion | 496 | 10.6% | 527 | 11.4% | 461 | 8.8% | 10.2% |
| Ectopic pregnancy | 30 | 0.6% | 44 | 0.95% | 50 | 0.9% | 0.85 % |
| Hyper emesis gravidarum | 13 | 0.28% | 14 | 0.3% | 17 | 0.32 % | 0.3% |
| vesicular mole | 2 | 0.04% | 5 | 0.1 % | 7 | 0.13% | 0.09 % |
| Postpartum hemorrhage | 12/4142 | 0.28% | 17/4039 | 0.42% | 20/4712 | 0.4% | 0.38% |

(Incidence was given per 100 hospitalized obstetric emergency cases)

The deliveries whether vaginal deliveries or caesarean sections represented the majority of cases (84.6%) in 2006 ,(83%) in 2007 and 85.4 % in 2008. Over all they constituted (84.4 %) of the total obstetric admissions through 2006 ,2007 and 2008 . The incidence of vaginal deliveries was (57.1%) in 2006, (55.2%) in 2007 and (52.8%) in 2008 ,Overall , The incidence of vaginal deliveries was (54.9%)of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of cesarean section was (27.5%) in 2006 , (27.7%) in 2007 and (32.6%) in 2008, Overall , The incidence of cesarean section was (29.4%) of the total obstetric admissions through 2006, 2007 and 2008 .

The incidence of abortion was(10.6%) in 2006 ,(11.4%) in 2007 and(8.8%) in 2008 ,Overall the incidence of abortion (10.2%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of hypertensive disorders of pregnancy was(2.3%) in 2006 , (2.5%) in 2007 and (2.7%) in 2008 ,with an overall incidence(2.5%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of preeclampsia was (1.7%) in 2006 , (1.8%)in 2007 and (2%) in 2008, with an overall incidence of (1.8%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of eclampsia was(0.43%) in 2006 ,(0.49%)in 2007 and (0.53%) in 2008 ,with an overall incidence of (0.48%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of gestational hypertension was (0.14%) in 2006 , (0.22%) in 2007and (0.19%) in 2008 with an overall incidence of (0.18%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of antepartum hemorrhage was (1.3%) in 2006 ,(1.6%) in 2007 and (1.5%) in 2008 with an overall incidence of (1.5%)of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of accidental hemorrhage was (0.28%) in 2006 ,(0.4%) in 2007 and (0.27%) in 2008 with an overall incidence of (0.3%) , while the incidence of placenta previa was (1%) in 2006 ,(1.2%) in 2007 and (1.2%) in 2008 with an overall incidence of (1.2%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of ectopic pregnancy was diagnosed in (0.6%) ,(0.98%) and (0.9%) in 2006 ,2007 and 2008 respectively .Overall , the incidence of ectopic pregnancy (0.88%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of hyper emesis gravidarum was (0.28%) in 2006 ,(0.3%) in 2007 and (0.32%) in 2008 .Overall , the incidence of hyper emesis gravidarum was (0.3%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of vesicular mole was (0.04%) ,(0.1%) and (0.13%) in 2006 ,2007 and 2008 respectively with overall incidence of (0.09%) of the total obstetric admissions through 2006,2007,and 2008.

The incidence of post partum hemorrhage was (0.28%) in 2006 , (0.42%) in 2007 and (0.4%) in 2008 , with an overall incidence was (0.38%) of the total obstetric admissions through 2006 ,2007 and 2008.

Table (3): Incidence of medical disorders associated with pregnancy .

| Diagnosis | 2006(N=4670) | | 2007(N=4615) | | 2008(N=5230) | | Overall |
|------------------------|--------------|-------|--------------|-------|--------------|-------|---------|
| | N | % | N | % | N | % | |
| Diabetes mellitus | 16 | 0.34% | 19 | 0.4% | 23 | 0.43% | 0.4% |
| Heart disease | 14 | 0.3% | 15 | 0.3% | 20 | 0.38% | 0.33% |
| Thyroid diseases | 5 | 0.1% | 5 | 0.1 % | 7 | 0.13% | 0.12% |
| Iron deficiency anemia | 45 | 0.96% | 53 | 1.1% | 59 | 1.1% | 1% |
| pyelonephritis | 18 | 0.4 % | 38 | 0.8% | 23 | 0.43% | 0.54% |

(Incidence was given per 100 hospitalized obstetric emergency cases)

The incidence of diabetes mellitus with pregnancy was (0.34%) in 2006 ,(0.4%) in 2007 and (0.43%) in 2008 .Overall ,the incidence of D.M with pregnancy was(0.4%) of total obstetric admissions through 2006 ,2007 and 2008 .

The incidence of heart diseases with pregnancy was (0.3%) in 2006 , (0.3 %) in 2007 and (0.38%) in 2008 ,with an overall incidence of (0.33%) of total obstetric admissions through 2006 ,2007 and 2008 .

The incidence of Thyroid diseases with pregnancy was (0.1%) in 2006 ,(0.1%)in 2007 and (0.13%) in 2008 .Overall , the incidence of Thyroid diseases with pregnancy was (0.12%) of the total obstetric admissions through 2006,2007 and 2008 .

The incidence of Iron deficiency anemia was (0.96%) in 2006 , (1.1%)in 2007 and (1.1%) in 2008 , with an overall incidence of (1%) of hospitalized pregnant women through 2006 ,2007 and 2008 .

The incidence of pyelonephritis with pregnancy was (0.4%) in 2006 , (0.8%) in 2007 and (0.4%) in 2008 .Overall , the incidence of pyelonephritis was(0.54%) of the total obstetric admissions through 2006,2007 and 2008 .

Table (4): shows the incidence of intra partum and post partum complications in need for emergency obstetric care.

| Diagnosis | 2006 (N=4670) | | 2007(N=4615) | | 2008 (N=5230) | | Overall |
|--------------------------|---------------|--------|---------------|-------|---------------|--------|---------|
| | N | % | N | % | N | % | |
| Rupture uterus | 4 | 0.08% | 3 | 0.06% | 7 | 0.1% | 0.09% |
| Peripartum Hysterectomy | 4 | 0.08% | 5 | 0.1% | 5 | 0.09% | 0.09% |
| Obstetric Shock (septic) | 6 | 0.13% | 5 | 0.1% | 5 | 0.09% | 0.1% |
| DIC | 1 | 0.02 % | 2 | 0.04% | 4 | 0.07 % | 0.05% |
| Amniotic fluid embolism | 1 | 0.02% | 0 | 0 | 0 | 0 | 0.006 |

(Incidence was given per 100 hospitalized obstetric emergency cases)

Types of maternal morbidity :

The incidence of rupture uterus was (0.08%) in 2006 , (0.06%) in 2007 and (0.1 %) in 2008 ,the overall incidence was (0.09%) of the total obstetric admissions through 2006 ,2007 and 2008 .

The incidence of peripartum hysterectomy was (0.08%) in 2006 , (0.1%) in 2007 and (0.09%) in 2008 ,overall incidence was (0.09%) of the total obstetric admissions through 2006 ,2007 and 2008.

The incidence of septic shock was(0.13%) in 2006 ,(0.1%) in 2007 ,and (0.09 %) in 2008 , with an overall incidence was 0.1 % of the total obstetric admissions through 2006 ,2007 and 2008.

The incidence of DIC was (0.02%) in 2006 , (0.04%) in 2007 and (0.07%) in 2008 , with an overall incidence was (0.05%) of the total obstetric admissions through 2006 ,2007 and 2008.

The incidence of amniotic fluid embolism was (0.02%) in 2006 , (0%) in 2007 and (0%) in 2008 , with an overall incidence was (0.007%) of the total obstetric admissions through 2006 ,2007 and 2008.

Maternal mortality rate (MMR)

$$\text{MMR} = \frac{\text{No of maternal deaths due to causes related to pregnancy , labor and puerperium}}{\text{No of live births in the same locality and year}} \times 100000$$

Table (5):shows Maternal mortality rate ,Number of cases and Causes of death

| Year | Maternal mortality rate (MMR) | Number of cases | Causes of death |
|------|-------------------------------|-----------------|---|
| 2006 | 50.57/100000 Live births | Two cases | 1-Amniotic Fluid Embolism 2-Irreversible hypovolumic shock |
| 2007 | 26.09/100000 Live births | One case | Rupture Uterus |
| 2008 | 22.38/100000 Live births | One case | Cerebral hemorrhage |

In 2006: two cases died

$$\text{MMR} = \frac{2}{3955} \times 100000 = 50.57/100000 \text{ Live births}$$

In 2007 : only one case died

$$\text{MMR} = \frac{1}{3833} \times 100000 = 26.09/100000 \text{ Live births}$$

In 2008 : only one case died

$$\text{MMR} = \frac{1}{4468} \times 100000 = 22.38/100000 \text{ Live births}$$