Case Study
Case-Study of Congenital Anomaly

A 20-year-old woman accompanied by her mother-in-law came to the clinic with 1 month 17 days amenorrhea. Her educational qualification was intermediate. Her husband was an unskilled worker and earned Rs. 2000 per month. She lived in nuclear family.

Obstetric Characteristics:
Her last menstrual period (LMP) was on 9 March. She was a primigravida and her first visit to the hospital for antenatal check-up at 1 month 17 days amenorrhea. She had complaints of nausea, vomiting and constipation in first trimester. During 3rd trimester, she had complaint of gastric pressure.

Anthropometric Measurements:
She was short stature and had normal BMI at first visit. She gained only 5kg weight during pregnancy which was very lower than normal weight gain (11-12kg).

Dietary Assessment:
She was a vegetarian and consumed three, four and five meals per day during 1st, 2nd and 3rd trimesters respectively. In her diet, nutrient intake was deficit than the RDA. Mainly iron and folic acid intake was very low in her diet. She was used 50gm mustard oil and 5gm salt in two servings. Only fat intake was higher than the RDA in all trimesters.

Behavioral Factors:
She was in stress due to physical discomfort. She was very happy at the first visit of antenatal check-up but lived always in fear. In follow-up, she was unhappy and always in tension even lived in nuclear family.

Clinical Examinations:
- Conjunctiva and nails were pale in all trimesters
- No thyroid enlargement
- Oedema at third trimester
- Blood pressure- 116/80 mmHg in 1st trimester
  120/70 mmHg in 2nd trimester
  128/90 mmHg in 3rd trimester

Investigations:
- Hemoglobin level- 9.8 g/dl in 1st trimester
  5.4 g/dl in 3rd trimester
• USG was done three times during pregnancy. Just before delivery, report of USG showed the cord around the neck of the fetus. But none of the USG report shows the congenital anomaly.

• 2 dose of tetanus vaccination.

**Pregnancy Outcome:**

• No complications found during delivery
• 37 weeks of gestational period
• Normal mode of delivery
• Full term birth
• Single offspring
• Male newborn
• crown heel length of newborn- 44cm
• weight of newborn- 2 kg
• Complications of newborn- congenital anomaly

▶ USG report did not show any type of anomaly. But newborn baby was born without fingers of the right foot.

Fig. A newborn with congenital anomaly
Case-Study of Twin Pregnancy

A 25-year-old woman came to the clinic with her husband having 1 month 15 days amenorrhea. She was illiterate. Her husband was also illiterate and an unskilled worker earned Rs. 2500 per month. She lived in a joint family.

Obstetric Characteristics:
Her last menstrual period (LMP) was on 7th March. She had two girl children. This was her third gravida and her first visit to the hospital for antenatal check-up. She had complaints of gastric pressure in all trimesters.

Anthropometric Measurements:
She had 160 cm standing height. She was underweight at her first visit for antenatal check-up and gained 16 kg weight during pregnancy.

Dietary Assessment:
She was a vegetarian and consumes three meals per day during pregnancy. In her diet, nutrient intake was deficit than the RDA except fat intake during 1st trimester.

Behavioral Factors:
She was happy and did not having fear during pregnancy. But due to preference for a child of a particular sex, she was in stress.

Clinical Examinations:
- Conjunctiva were pale in all trimesters
- Nails were pale in only 2nd trimester
- No thyroid enlargement
- Oedema was seen in second and third trimester.
- Blood pressure- 120/70 mmHg in 1st trimester
  110/70 mmHg in 2nd trimester
  120/70 mmHg in 3rd trimester

Investigations:
- Hemoglobin level- 10.0 g/dl in 1st trimester
- USG was done at 3rd month of amenorrhea. USG report did not show the twin pregnancy.
- 2 dose of tetanus vaccination

Pregnancy Outcome:
- No complications were found during delivery
• 34 weeks of gestational period
• Normal mode of delivery
• Preterm birth
• Multiple births (Twins)
• Male newborns
• Crown heel length of twin newborns- 47.00 cm length of both infants
• Weight of newborns- 2.5 kg weigh 1\textsuperscript{st} born
  2.25 kg weigh of 2\textsuperscript{nd} born
• Complications of newborns- infants were premature

\textbf{Management of Twin Pregnancy:}

• Increased dietary supplement is needed for increased energy supply to the extent of 300 kcal per day, over and above that needed in a singleton pregnancy. The increased protein demand is to be met with.
• Increased rest at home and early cessation of work is advised to prevent preterm labor and other complications.
• Iron therapy is to be increased to the extent of 60-100 mg per day. Additional vitamins, calcium and folic acid (1 mg) are to be given, over and above those prescribed for a singleton pregnancy.
• Interval of antenatal visit should be more frequent to detect at the earliest, the evidences of anemia, preterm labor or pre-eclampsia.
Case-Study of Severe Anemia

A 27-year-old woman accompanied by her husband came to the clinic with 1 month 15 days amenorrhea. She had passed high school. Her husband was a semi-skilled worker and earned Rs. 2500 per month. She lived in joint family.

Obstetric Characteristics:
Her last menstrual period (LMP) was on 24th April. She had two children (1 girl, 1 boy). She had complaints of nausea, vomiting in first trimester. During 2nd and 3rd trimesters, she had complaint of gastric pressure.

Anthropometric Measurements:
She was having short stature (150 cm) and normal BMI at first visit. She gained only 7 kg weight during pregnancy which was lower than normal weight gain (11-12kg).

Dietary Assessment:
She was a non-vegetarian and consumes three meals per day during all trimesters. In her diet, nutrient intake was deficit than the RDA. Iron and folic acid intake was very low in her diet.

Behavioral Factors:
Though, she was in stress due to physical discomfort yet she was happy during pregnancy.

Clinical Examinations:
- Conjunctiva and nails were pale in all trimesters
- No thyroid enlargement
- Oedema at third trimester
- Blood pressure- 110/80 mmHg in 1st trimester
  120/72 mmHg in 2nd trimester
  112/70 mmHg in 3rd trimester

Investigations:
- Hemoglobin level- 9.8 g/dl in 1st trimester
  7.8 g/dl in 2nd trimester
  3.2 g/dl in 3rd trimester
- Only one USG done during pregnancy.
- 2 dose of tetanus vaccination
Pregnancy Outcome:
- No complications were found during delivery
- 33 weeks of gestational period
- Normal mode of delivery
- Preterm birth
- Single offspring
- Female newborn
- crown heel length of newborn- 44.5cm
- weight of newborn- 1.5 kg

Due to the severe anemia (Hemoglobin 3.2 g/dl) at 8th month of pregnancy and low consumption of iron and folic acid during all trimesters, a premature infant was born. Due to severe anemia, blood was also transfused to the woman at 8th month of pregnancy.
Case-Study of Placenta Praevia

A 22-year-old woman accompanied by her husband came to the clinic with 1 month 11 days amenorrhea. She was a graduate. Her husband was also a graduate and a skilled worker earning Rs. 3000 per month. She lived in a nuclear family.

Obstetric Characteristics:
Her last menstrual period (LMP) was on 7th March. This was her third gravida. She did not have any child because her last two pregnancies were aborted due to bleeding. She did not discuss the reason of the bleeding. She had complaints of nausea and vomiting in 1st trimester.

Anthropometric Measurements:
She had 162 cm standing height. She was underweight at first visit for antenatal check-up and gained 7 kg weight during pregnancy.

Dietary Assessment:
She was a vegetarian and consumed three meals per day during 1st trimester. During 2nd and 3rd trimesters, she consumed four and five meals per day respectively. In her diet, nutrient intake was deficit than the RDA except fat intake during 1st and 2nd trimesters. Iron and folic acid consumption were very low during pregnancy.

Behavioral Factors:
Due to her last two abortions, she was in fear. She was in stress due to the physical discomfort. In spite of it, she was happy during her pregnancy.

Clinical Examinations:
- Conjunctiva were pale in third trimester
- Nails were not pale during pregnancy
- No thyroid enlargement
- Oedema was not seen.
- Blood pressure: 110/70 mmHg in 1st trimester
  106/60 mmHg in 2nd trimester
  110/80 mmHg in 3rd trimester
- Clinical differential diagnosis: vaginal bleeding occurred at 4 months of pregnancy
Investigations:
- Hemoglobin level - 9.6 g/dl in 1st trimester
- USG was done at 4th month of amenorrhea. USG of abdomen revealed Type II Placenta Praevia reaching up to internal OS (Internal orifice of the uterus).
- 2 dose of tetanus vaccination

Pregnancy Outcome:
- No complications were found during delivery
- 37 weeks of gestational period
- Normal mode of delivery
- Fullterm birth
- Singleton offspring
- Female newborn
- Crown heel length of newborn - 47.00 cm
- Weight of newborn - 2.25 kg
- No complications were found in newborn

► Management of Placenta Praevia:
When the placenta is implanted partially or completely over the lower uterine segment it is called placenta praevia. Placenta praevia is one of the inherent obstetric hazards and in majority the cause is unknown. Thus to minimize the risks, the following guidelines are useful.

- Adequate antenatal care to improve the health status of women and correction of anemia.
- Antenatal diagnosis of low lying placenta at 20 weeks with routine ultrasound needs repeat ultrasound examination at 34 weeks to confirm the diagnosis.
- Significance of "warning hemorrhage" should not be ignored or underestimated.
- Family planning and limitation of births reduce the incidence of placenta praevia.
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Case-Study of Pregnancy Induced Hypertension

A 29-year-woman came to the clinic with 1 month 7 days amenorrhea. She was a senior laboratory assistant. Her husband was a clinical psychologist and earned Rs. 32000 per month. She lived in a joint family.

Obstetric Characteristics:
Her last menstrual period (LMP) was on 18th March. She was a primigravida and her first visit to the hospital for antenatal check-up at 1 month 7 days of amenorrhea. She had complaint of gastric pressure in 3rd trimester.

Anthropometric Measurements:
She had 147 cm standing height. She had obese 1 grade BMI at first visit for antenatal check-up and gained 8 kg weight during pregnancy.

Dietary Assessment:
She was a non-vegetarian and consumed five, four and five meals per day during 1st, 2nd and 3rd trimesters respectively. In her diet, nutrient intake was deficit than the RDA except fat intake during 1st and 3rd trimesters. Iron and folic acid consumption were very low during pregnancy.

Behavioral Factors:
She was happy during pregnancy but felt little fear because it was her first pregnancy.

Clinical Examinations:
- Conjunctiva were not pale during pregnancy
- Nails were not pale during pregnancy
- No thyroid enlargement
- Oedema was seen during 2nd and 3rd trimesters
- Blood pressure- 140/86 mmHg in 1st trimester
  140/90 mmHg in 2nd trimester
  120/90 mmHg in 3rd trimester

Investigations:
- Hemoglobin level- 11.0 g/dl in 1st trimester
  10.5 g/dl in 2nd and 3rd trimesters
- USG done three times during pregnancy (to determine gestational age, liquor volume, anomalies).
- 2 dose of tetanus vaccination
Pregnancy Outcome:

- No complications were found during delivery
- 36 weeks of gestational period
- Caesarean delivery done because fetal heart beats were less at the time of delivery.
- Preterm birth
- Singleton offspring
- Female newborn
- Crown heel length of newborn- 44.40 cm
- Weight of newborn- 2.40 kg
- No complications were found in newborn

Management of Pregnancy Induced Hypertension:

Hypertension is the commonest medical problem encountered in pregnancy. Incidence of preeclampsia is higher in primigravida compared to multipara irrespective of the age.

- Regular record of blood pressure
- Conservative management with special attention to diet, protein rich, low salt, iron rich
- Ensure adequate rest and sleep
- Start antihypertensive drugs
A 22-year-old woman accompanied by her mother-in-law came to the clinic with 1 month 19 days amenorrhea. She was an illiterate woman. Her husband was a semiskilled worker and earned Rs. 1500 per month. She was lived in a joint family.

**Obstetric Characteristics:**
Her last menstrual period (LMP) was on 26th March. She had one girl aged 1 year and 5 months old. First gravida was aborted due to the vaginal bleeding. This was her third gravida and her first visit to the hospital for antenatal check-up. She had complaint of gastric pressure in all trimesters.

**Anthropometric Measurements:**
She had 155 cm standing height. She was overweight at first visit for antenatal check-up and gained 8 kg weight during pregnancy.

**Dietary Assessment:**
She was a vegetarian and consumes three meals per day during pregnancy. In her diet, nutrient intake was deficit than the RDA. Iron and folic acid consumption were very low during pregnancy.

**Behavioral Factors:**
She was happy and did not having fear during pregnancy. But due to preference for a child of a particular sex, she was in stress.

**Clinical Examinations:**
- Conjunctiva were pale during 2nd and 3rd trimesters
- Nails were pale during 2nd and 3rd trimesters
- No thyroid enlargement
- Oedema was not seen
- Blood pressure- 130/90 mmHg in 1st trimester
  126/90 mmHg in 2nd trimester
  126/88 mmHg in 3rd trimester

**Investigations:**
- Hemoglobin level- 10.2 g/dl in 1st trimester
  7.8 g/dl in 3rd trimester
- Blood group- A positive, Rh-negative
- USG done one time during pregnancy.
• 2 dose of tetanus vaccination.

**Pregnancy Outcome:**

• No complications were found during delivery
• 37 weeks of gestational period
• Normal delivery
• Full term birth
• Singleton offspring
• Male newborn
• Crown heel length of newborn- 46.00 cm
• Weight of newborn- 4.00 kg
• No complications were found in newborn

**Prevention of Rh-Immunisation:**
The individual having the antigen is called Rh-positive and in whom it is not present, is called Rh-negative. To prevent active immunization of Rh-negative yet unimmunized mother, Rh anti-D immunoglobulin (IgG) is administered intramuscularly to the mother following child birth and abortion. It should be administered within 72 hours or preferably earlier following delivery or abortion.