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# A Survey on Common Surgical Problems in Pregnant Women

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***Abstract:***

*The main purpose of this analysis is to interact with pregnant women who have some common surgical disorders and to enlighten a rational approach to their management. To access the prevalence of the most common surgical diseases in pregnant women and their diagnosis to take precautions and preventions of the disease. To decide when surgical intervention is needed and to decrease mortality and morbidity of both mother and fetus.*

***Keywords:*** *Pregnant Women, Thyroid, Varicose veins, Breast Cancer, Appendicitis, Constipation.*

## 1. BACKGROUND

In our analysis we considered pregnant women and we excluded other surgical problems like cholicystis, pancreatitis etc. Here we considered 5 most common surgical diseases which are most of the time observed in female general surgical O.P, how the same diseases affect the pregnant women we observed.

## 2. MATERIALS AND METHODS

We statistically analyzed 1000 Antenatal and Postpartum cases in Maternity Hospital, S.V. Medical College during 10days to know the incidence of above diseases which are commonly observed in female general surgical O.P as represented in Table 1. For this analysis the other common surgical problems like Obstructions, Peritonitis etc. are excluded.

We took the history from the Pregnant Women regarding the signs and symptoms of the diseases and based on clinical examination. But women are not willing for PR or Anoscopy due to fear of abortion, they are not bothered and also not aware about pregnancy associated health problems. So we considered here constipation instead of Hemorrhoids' & Fissure.

## 3. RESULTS

Based on the following collected information we used Fig1 i.e Line chart as Statistical tool to represent the data.

| S.NO | Disease | Incidence |
|---|---|---|
| 1 | Thyroid | 14 |
| 2 | Varicose Veins | 27 |
| 3 | Breast Abscess | 7 |
| 4 | Appendix | 2 |
| 5 | Constipation | 42 |

**Table 1:** Incidence of the Diseases in 1000 Women.

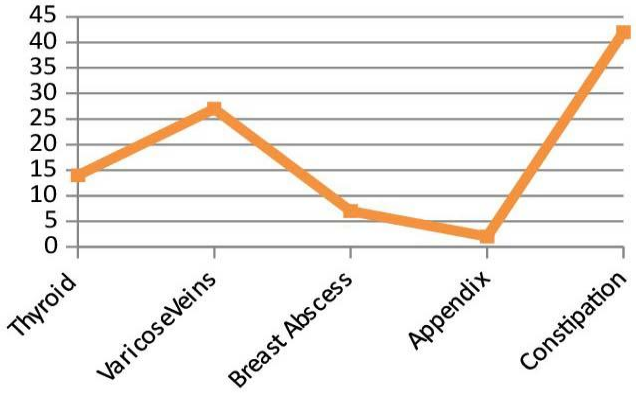


**Figure1:** Line Chart for above Statistical Data.

## 4. INTRODUCTION

### 4.1 Thyroid

Usually, uncorrected Thyroid [1] dysfunction in pregnancy shows adverse effect on fetal & maternal well being. Affect the neuro intellectual development in the early life of the child. The hypothyroidism complications are miscarriages, anemia, pre-eclampsia, abruption placenta, post partum hemorrhages. The Offspring of these mothers are suffer with premature birth, low birth weight babies and increased neonatal respiratory distress. The management of Hypothyroidism Levothyroxine is the drug of choice [2]. After confirmation of pregnancy dose titrations guided by $FT_4$ & TSH increase the dose 30-50% by monitoring 4-6 weekly. The recommended TSH is below 2.5 mu / *l* in 1st trimester, recommended 3 mu/ *l* in later pregnancy & Thyroxin dose in 2.0 to 2.4 µg/ kg daily.The Hyperthyroidism is common in Grave's, less common is toxic nodule and thyroiditis. But we have to differentiate between hyperthyroidism and hyper dynamic state of pregnancy. There is a chance of self limiting hyperthyroid state due to stimulatory effect of beta – hcg. Graves worsen in first trimester, remits in later pregnancy, again relapses is the post partum.

Hyperthyroidism also affects both mother and fetus. In mother it leads to severe eclampsia, low birth weight deliveries. In fetus transplacental transfer of stimulatory TSH receptor antibodies causes Neonatal hyperthyroidism (1 %). Sometimes due to transfer of maternal antithyroid drugs causes the Pituitary Thyroid axis suppression from transfer of maternal thyroxin. It is managed with medical therapy with anti thyroid medication. Surgery is considered for patients who suffer with severe adverse reactions to anti thyroid drugs. Surgery is best in second trimester as operated as shown in Figure2 as similar to the non pregnant women and no variations are needed in position of the patient, mode of anesthesia.Methimazole and Propylthiouracil (PTU) are effective. Women receiving Carbimazole change to Propylthiouracil again changed back to Carbimazole after 1st trimester.

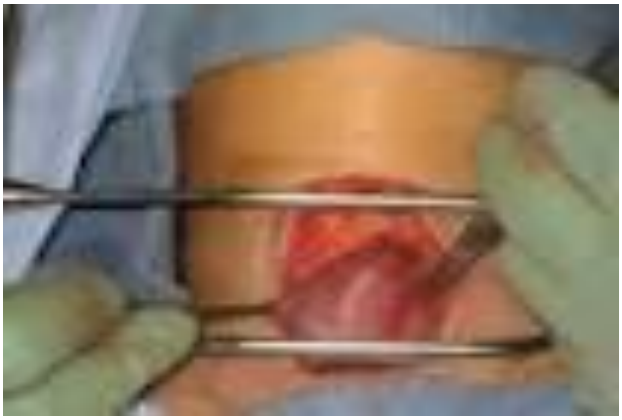

**Figure 2:** Thyroidectomy.

Both the drugs secreted in breast milk, but evidence suggests that drugs are safe during lactation.Because of immunosuppressive effect of pregnancy, the Hyperthyroidism can be easily controlled (Autoimmune Disorder) by medical management the drugs are – "Thionamdies" eg, Carbimazole, P.T.U (propylthiouracil). The mechanism of action PROPYLTHIOURACIL inhibits the uptake & organification of iodine, and also inhibits peripheral conversion of T4 to T3 .The dose is 200mg 8th hourly .The complications of the drug is Goitre in foetus.

The CARBIMAZOLE is dose 20mg/day in divided doses and maintenance dose is 5-10mg.The side effects are Agranulocytosis, Itchy skin rashes, Hepatitis, Lupus like syndrome, Goitrogenesis & Hypothyroidism in foetus and Congenital Aplasia cutis. Due to these side effects PTU is selected instead of Carbimazole in pregnancy.

### 4.2 Varicose Veins

Varicose Veins are tortuous dilated and enlarged veins [4]. The incidence is more common in women than in men.i.e. – 25-30%. In pregnant women 70% [11] varies from 20 to 50%. As per mechanical theory, hormonal theory and classical theory [5,6], the risk factors in pregnancy for varicosities are increased blood volume and increased blood flow, increased levels of progesterone – acts on venous walls and pressure effect of gravid uterus in the pelvis obstructs the blood flow in venus system. The symptoms are Aching / Heaviness in lower limbs on prolonged standing, Ankle swelling, due to complications – bleeding / superficial thrombophlebitis / eczema.

Coming to management of varicosities during pregnancy, larger or more deeply rooted veins may need more specific medical treatment such as Surgery or Sclerosant, which is injected near the problematic veins. Sclerosant causes valves become non-functional and invisible to the eye.The drugs commonly used are Calcium dobesilate–500mgBD,

Diosmin – 450mg BD, Toxerutin – 500mg BD. But the benefits of all these drugs in pregnant women are doubtful. Surgery also indicated during pregnancy only when there is Bleeding, Superficial thrombophlebiti and the symptoms which impair quality of life, better to wait until they complete their pregnancies, on the grounds that varicosities may recur after subsequent pregnancies. For prevention of varicosities pregnant women can follow these simple guidelines like take rest frequently, sleep on the left side, wear maternity support hose, do exercise that increase the blood from the legs and elevate the feet often to increase blood flow from the legs to the heart.

### 4.3 Breast Abscess

Mastitis is the inflammation of breast tissue. The Common Organism is – S.aureus ,others are – S.epidermidis, S. streptococci, Gram negative- E.coli, and Salmonella species like Mycobacterium, Candida and Cryptococcus. There is need to educate the health personnel at root level to search for the presence of Cracks, Sores, Tight clothing, Ill-fitting bras and same time educate the pregnant women

about proper baby feeding techniques, check infants carrying pathogens in their nose and mouth during AN and Postnatal checkups, Avoid stress to lactating mother. Treat the Mild and Moderate Mastitis conservatively and with antibiotics. But in severe breast abscess surgical intervention is needed and incision, drainage is must as done as shown in Figure 3.

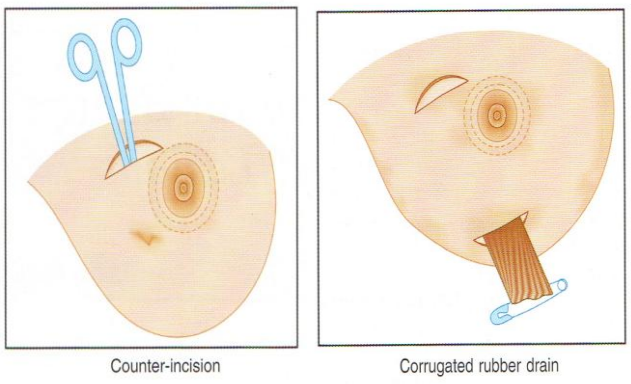


**Figure 3:** Dependent Counterpart Incision and Drainage.

Post Weaning Mastitis indicates Hyperprolactinemia, Thyroid Disorders. For these cases Endocrinal Examination is needed. Granulomatus Mastitis occurs up to 2 to 6 years after child birth due to auto immune reaction to milk protein because of incomplete inhibition of milk secretion.

### 4.4 Appendicites

It is the most common non-obstetric emergency. It occurs with equal frequency in pregnant and non pregnant women [3].

The Incidence 1:1500 that in 1st trimester (19% to 36%) and Higher incidence is in 2nd trimester (27% to 60%) and decreased in 3rd trimester (15% to 30%). Compared to general population perforation chances is more i.e. 55%.

The clinical features are tenderness over the site of appendix is the hallmark of acute appendicitis. The diagnosis is difficult during pregnancy because, Appendix displaced by gravid uterus, Muscular laxity, lifting of abdominal wall by gravid uterus. Access to the Appendix can be hampered by the enlarged Uterus [3].

The risk of delay in diagnosis may lead to Perforation, Infection, and Preterm labor, and Fetal and Maternal loss, risk of perforation increases with gestational age.

It changes its location during pregnancy as shown in Figure4 with an upward displacement up to the costal margin and right upper quadrant pain and entire right sided pain is suspect to Appendicitis.

The Laparoscopic Appendectomy done by experienced surgeons. Open access using the Hasson technique is a must; the intra abdominal pressure should be kept at 10 to 12 mm Hg [3].

There are various positions in Appendicites which are shown in the figure as follows..

**Figure 4:** Various Positions of Appendicitis.

### 4.5 Constipation

The most common causes for rectal bleeding during pregnancy are Haemorroids & Fissure. The most leading cause is decreased frequency of defecation because of constipation. Mostly 11 – 38% of pregnant women are suffers with constipation [7]. The management of Haemorrhoids is mild laxatives should be given during the last 3 months of pregnancy and postpartum period particularly for patients with constipation. Create awareness in family members the need of fiber diet and plenty of water and tell to them avoid “pathyam”. Haemorrhoidectomy is indicated during pregnancy only if there is acute painful prolapsed and thrombosed Haemorrhoids are present. Haemorrhoidectomy[8,9] is performed under local anesthesia in the left lateral position otherwise surgery is indicated in the immediate postpartum period. If there is Symptomatic Hemorrhoids that were present prior to pregnancy and aggravated during pregnancy persist after delivery.

The elongated split in the squamous epithelium of distal anal canal is Fissure. It extends from the anal margin proximally below the dentate line. Women with normal delivery most of the times suffer with anal fissure. Anterior fissures are more common in women.The Fissures are managed by Manual anal dilatation (MAD) but not preferred with weak perennial body and Lateral Sphincterotomy[10]. The prevention methods are eat high fiber diet, drink plenty of water, do Kegel exercises daily, don’t sit or stand for long stretches at a time, sleep on your side rather than back, lie down on your left side few times a day to relive pressure on rectal veins and don’t wait when you have urge to have a bowel movement

## CONCLUSION:

Pregnant women are not immune to any disease and no disease is kind enough to not affect pregnant women. The

diagnosis and treatment requires interaction between Surgeon, Obstrician, Anaesthetist and also paramedical staff. Physiological changes of pregnancy may amplify and make difficult to understand these diseases like Hemorrhoids, Fissure, Varicose Veins and Appendicitis and Breast Abscess. This needs to train the health professionals involving in women's health care especially during the fertile period by informing on these diseases.

## DISCUSSIONS

As per discussion for Thyroid, Surgery is safe in second trimester of pregnancy , for Varicose Vein better to wait and reassure the patient until delivered , for Breast Abscess surgical intervention is must and for thrombosed, strangulated Haemorraids surgery need whereas in Appendix in time surgical intervention decreases fetal mortality & mobility to mother. And create root level awareness about the diseases in pregnant women during antenatal checkups by the paramedical staff and medical officers.

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