

A STUDY ON ADENEXAL MASSES DIAGNOSED DURING SURGERY IN PREGNANCY

ABSTRACT

Introduction : With improved antenatal care in south India, increase in number of hospital visits by the pregnant women is in turn increasing the detection rate of benign conditions like ovarian cysts during ultrasound. When the benign ovarian cysts are detected, there are various methods of managing and follow up is necessary. **Materials and Methods :** We evaluated adnexal masses discovered during the cesarean sections, based on inpatient and operative records, birth and pathology registries. Cases with adnexal masses benefited usually of surgical treatment during the cesarean section, cystectomies, ovariectomies and rarely adnexectomies being preformed. **RESULTS :** In the study period of three and half years, 40 women with adnexal masses were recognized during abdominal procedures, done in pregnancy. 22 women had cysts size measuring more than 4 cm, and 1 woman had bilateral clear cyst. Though various studies have shown dermoid to be the most common pathology, we found clear cysts in 11 women. **Conclusion:** Surgical management of adnexal masses during caesarean section can and should be performed at this time avoiding later surgery for this incidental pathology.

Key words : ovarian cyst, pregnancy, caesarean section, clear cyst, dermoid

Introduction

With improved antenatal care in south India, increase in number of hospital visits by the pregnant women is in turn increasing the detection rate of benign conditions like ovarian cysts during ultrasound. When the benign ovarian cysts are detected, there are various methods of managing and follow up is necessary. Frequency of ovarian cancer is reported between 1 out of 15,000 and 1 out of 32,000 pregnancies [1]. First trimester aneuploidy screening or just routine prenatal ultrasound scans can reveal adnexal masses in early pregnancy up to 1-2% of total pregnancies, which need careful consideration and management [2]. To avoid a delay in diagnosis of a malignancy and to eliminate future surgery, a good inspection and if necessary surgical treatment of the adnexa pathology is required during the caesarean section [3].

Materials and Methods

This retrospective study was performed between the 1st of January 2012 and 31st May 2015 in the Department of Obstetrics, of ESICMCPGIMSR hospital, Bangalore, located in India. We evaluated adnexal masses discovered during the cesarean sections, based on inpatient and operative records, birth and pathology registries. Cases with adnexal masses benefited usually of surgical treatment during the cesarean section, cystectomies, ovariectomies and rarely adnexectomies being performed. In our hospital during the cesarean section uterus, adnexa are regularly examined for any abnormalities or anomalies, so as to detect early and treat for the benefit of the patients.

RESULTS

In the study period of three and half years, 40 women with adnexal masses were recognized during abdominal procedures, done in pregnancy. Out of 40 women, as shown in table 1, 15 were primigravida, rest were multiparous. We observed that 25 adnexal masses including ovarian cysts and fimbrial cysts were observed during caesarean sections done in third trimester while 15 were observed during first trimester on laparotomy, depicted in table 2. Further 22 women had cysts size measuring more than 4 cm, and 1 woman had bilateral clear cyst. Though various studies have shown dermoid to be the most common pathology, we found clear cysts in 11 women, fimbrial cysts in 11 women, mucinous cystadenoma in 5, serous cystadenoma in 2, corpus luteal cyst in 4, hemorrhagic cyst in 2, dermoid in 1, paraovarian cyst in 1, hydatid cyst of Morgagni in 1, endometriosis in 2 women. Conservative approach was followed for 26 women, while cystectomy was performed in 10 women, fluid aspiration was done in 4 women. We have not noted even single carcinoma among any of the pregnant women during these years.

TABLE NO 1 : PARITY OF WOMEN IN STUDY

PARITY	NUMBER OF WOMEN
PRIMIGRAVIDA	15
MULTIPAROUS	25
total	40

TABLE NO 2: PERIOD OF PREGNANCY OF WOMEN IN STUDY

TRIMESTER	NUMBER OF WOMEN
I	15
III	25
TOTAL	40

Discussion

The adnexal masses diagnosed during pregnancy, spontaneously resolve generally evident on follow up scans by second / third trimesters. Henceforth conservative management is preferred in these women. Many authors observed that the increasing caesarean section rate correlates positively with increasing incidental adnexal mass rate. This phenomena has a multitude of causes grouped in medical causes (a better investigation of the pregnancy, elder patients), patient causes (patients' will influenced by mass media, fashion, incorrect information), doctor concerned reasons (more comfortable, less law suits, safer way), clinic reasons (a more relaxed attitude concerning this problem). As mentioned in Ingrid Paredes et

al , another management dilemma is during cesarean section when incidentally we notice adnexal mass regarding the medico-legal issues on the informed consenting process [4]. Dede and Hoffman conclude that at the time of cesarean section incidental adnexal masses should be surgically removed, avoiding later surgery and establishing malignancy status of the mass [5]. Leiserowitz adds that ovarian masses should be removed intact when possible, especially in suspicious cases [6]. Cystectomy is the recommended procedure, ovariectomy and ovariectomy with salpingectomy being reserved for complex cases. When a suspicion of malignancy or complex cysts are identified during surgery , proceeding to staging laparotomy with adequate tissue sampling for complete staging and diagnosis of the disease. In case of malignancy timely treatment can improve the prognosis of the disease. As mentioned in Herman et al studies are yet to reveal the complications in children exposed to intra-uterine chemotherapy. Aspiration of cysts is not followed in our hospital. Routine inspection of adnexa along with uterus during caesarean section is beneficial for documenting and diagnosing incidental findings. In our study, we didn't find a single malignant case, yet, puncturing of cyst as management of cysts are not advocated. In case of size of cyst being more than 5 cm or features of complex cyst or if in doubt of malignancy , staging laparotomy can be proceeded with informed consent and counselling of the patient, spouse / family to avoid repeated surgeries and also for timely diagnosis of the disease.

5. Conclusion

Inspection of adnexal masses during caesarean section should be performed. Surgical management of adnexal masses during caesarean section can and should be performed at this time avoiding later surgery for this incidental pathology.

When simple ovarian cyst observed with more than 5 cm is observed , cystectomy can be performed and in case of features suggestive of malignancy proceeding to staging laparotomy is beneficial to the patient.

REFERENCES :

1. [J Gynecol Obstet Biol Reprod \(Paris\)](#). 2001 Nov;30(1 Suppl):S100-8.Ovarian cysts and pregnancy. [Goffinet F](#)¹.
2. Alpa M Nick, Kathleen Schmeler, Adnexal Masses in Pregnancy, *Perinatology*, Vol 1, No 2,2012, p13-21
3. Horowitz NS, Management of adnexal masses in pregnancy, *Clin Obstet Gynecol*, vol 54, no 4, 2011, p 519-527
4. Ingrid Paredes, et all, Incidental adnexal mass at caesarean section- the value of implementing a comprehensive consenting process,*BJMP*, vol 4, no 1, 2011
5. Hoffman MS. Barbier RL (Ed), UpToDate. 2015. Differential diagnosis of the adnexal mass
6. Leiserowitz GS. Managing ovarian masses during pregnancy. *Obstet Gynecol Surv*. 2006 Jul;61(7):463-70.