

## The use of ultrasound with Doppler Velocimetry as diagnostic modality in decision-making for cervical cancer in pregnancy

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### Abstract

**Statement of the Problem:** Cervical cancer in pregnancy is a challenge to the obstetrician, oncologist and perinatologist.

This is a case of a 38 year old G4P2 (2012) who, during her prenatal course, was diagnosed with Squamous Cell Carcinoma of the Cervix. The patient is a smoker with multiple sexual partners. Early in her pregnancy, she underwent a Pap smear which revealed Atypical Glandular Cells of Undetermined Significance. Cervical punch biopsy was done revealing squamous cell carcinoma, which on clinical staging was at Stage IIA. This paper aims to present a case of cervical cancer in pregnancy, present management options, and discuss the role of prenatal ultrasound in decision making for cervical cancer.

**Methodology & Theoretical Orientation:** A gynecologic oncology ultrasound was done to assess the tumor invasion. 2D ultrasound outlined the size of the mass, its stromal invasion. Doppler ultrasound demonstrated abundant vascularization, in scattered vessel pattern. The scan further demonstrated absence of parametrial invasion, thus, after a course of corticosteroids, the patient subsequently underwent Radical Hysterectomy, Bilateral Salpingo-oophorectomy, Bilateral Lymph Node Dissection at 36 weeks gestation.

**Findings:** Patient delivered at 36 weeks to a live baby boy, via classical cesarean section with radical abdominal hysterectomy with bilateral salpingo-oophorectomy, and bilateral lymph node dissection. Gross examination revealed a tumor at the cervix, with no involvement of the uterine corpus and parametria. Histopathology report showed invasive squamous cell carcinoma, large-cell non-keratinizing, with invasion of the upper vaginal wall, but with no parametrial infiltration.

**Conclusion & Significance:** This case shows that although there is a small risk of tumor progression, delaying definitive treatment may be done in early stage disease to improve fetal outcome. A multidisciplinary team is required to make thorough investigations to determine the stage and extent of invasion as well as to make best decisions regarding time and mode of delivery.



### Biography:

Dr. Bautista has her expertise in the field of Maternal Fetal Medicine and Ultrasound in Obstetrics and Gynecology, with further training in Ultrasound of Gynecologic Malignancies. She is a graduate of the Fellowship Training in Perinatology at the Manila Central University in the Philippines. She is presently taking her Masters in Hospital Administration. She is also the Assistant Training Officer in the Department of Obstetrics and Gynecology of Dr. Pablo O. Torre Memorial Hospital, and a Professor at the University of St. La Salle Medical School. She has presented various case reports and research papers in different conferences locally and abroad.

### Speaker Publications:

1. Correlation of early pregnancy Body Mass index, Waist Circumference and Waist-to-Hip Ratio to Gestational Diabetes Mellitus in the First and Second Trimester, 2017
2. Concurrent Carcinoma In Situ of the Cervix and Persistent Endocervical Mass in a Pregnant Woman: A Case Report
3. Correlation of Fetal Cheek-to-Cheek Diameter with Estimated and Actual Birthweight and with Mode of Delivery among Women with Gestational Diabetes Mellitus



4. Arnold Chiari Type II Malformation with Myelomeningocele: A Case Report
5. The Effect of Prenatal Supplementation of Fish Oil in the Development of Allergic Diseases in Infants of High Risk Atopic Mothers

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