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**The use of color Doppler velocimetry in the diagnosis of the nature of ovarian masses.**

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To evaluate the validity of transvaginal color Doppler velocimetry (TVCDV) in the diagnosis of the nature of ovarian masses.

After abdominal and vaginal ultrasound, TVCDV was done on thirty patients with ovarian masses to detect neovascularization, vascular location, type of vascularization and vascular quality in the form of resistance index (RI) and pulastile index (PI), exploration laparotomy was performed in all cases indicated and the specimens were taken for the histopathology.

There was insignificant difference between benign and malignant ovarian tumours as regards ovarian size, wall and septal thickness, papillae, echogenicity and presence or absence of neovascularization. While there was a significant difference between benign and malignant ovarian lesions as regards vascular location (centrl,peripheral) and distribution (regular separation, random dispersion). There was insignificant difference between mean PI and RI values, although there was a significant positive correlation ( $p < 0.05$ ). When PI and RI were used separately in assessing the nature of ovarian masses, sensitivity were 62.5% and 50%, specificity 64.7% and 70.6%, positive predictive value 45.5% and 44.4%, negative predictive value 78.6% and 65% and accuracy were 64% and 64% respectively. When both PI and RI were used together, the sensitivity was 50%, specificity 76.5%, positive and negative predictive values were 50% and 76.5% and the accuracy was 68%.

The TVCDV was not significantly effective in diagnosing the malignant ovarian tumours, but may be helpful in exclusion the possibility of malignancy. The use of large population scale, multiparameter analysis and other diagnostic tools as an adjuvant can improve the sensitivity and specificity of the CDV in assessing the nature of ovarian masses.

## I S —36

**COMPARISON BETWEEN FROZEN SECTION AND IMPRINT CYTOLOGY IN THE INTRAOPERATIVE DIAGNOSIS OF OVARIAN MALIGNANCY**

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**ABSTRACT**

Because frozen section is labor-intensive and time consuming for the pathologists, the diagnostic accuracy of intra-operative imprint cytology of the ovary for malignancy was measured in patients with a preoperative diagnosis of ovarian new growth. Accuracy and reliability of imprint cytology and frozen section were compared with paraffin section as gold standard.

A cross-sectional design was employed. Fifty-four (54) patients with a preoperative diagnosis of ovarian new growth from January 1994 to December 1997 were included in the study. Two pathologists, both blinded to histopathologic reports, read the frozen section and imprint cytology.

The accuracy rate of imprint cytology is 94.4% while frozen section is 90.7% but was not statistically significant. Both were specific at 100%. Sensitivity rate of imprint is 80% while frozen section is 66.7%. These results are similar to other studies comparing the diagnostic accuracy of imprint preparation with that of the frozen section analysis and the reported accuracy rates of frozen section technique. There was 100 % agreement between the 2 pathologists.

Therefore, imprint cytology can replace frozen section in the intraoperative diagnosis of ovarian malignancy. It is specific and maybe more sensitive than frozen section