

## **TO STUDY THE IMMUNOHISTOCHEMICAL EXPRESSION OF BCL-2 IN ENDOMETRIAL CARCINOMA AND ITS CORRELATION WITH HORMONE RECEPTOR STATUS AND TRANSFORMING GROWTH FACTOR.**

### **Abstract:**

Endometrial carcinoma is the most common malignant tumor of the female genital tract with increasing incidence in developed countries. In the era of targeted therapy immunohistochemical markers plays an important role in the treatment and prognosis of endometrial carcinoma.

### **Aims and objectives**

To study the immunohistochemical expression of Bcl-2 in endometrial carcinoma.

To study the correlation of Bcl-2 expression with hormone receptor status and transforming growth factor receptor in endometrial carcinoma.

### **Methods:**

59 cases of endometrial carcinoma reported between the period from January 2010 to December 2014 in the department of pathology of this institute were considered in the study. Immunohistochemical staining for Bcl-2, ER, PR, Her 2/neu were done. Bcl-2 expression was correlated with ER, PR and Her 2/ neu receptor expression. Results

### **Results:**

Bcl-2 expression was seen in 38 out of 59 cases ( 64.4%) . Bcl-2 was mostly expressed in 85.71% of grade I tumors and 75.75% of stage I tumors . Estrogen receptor was positive in 33 cases ( 55.9%) and Progesterone receptor was positive in 44 cases ( 74.57%) . Grade I tumors showed 71.4% and 94.28% positivity of estrogen and progesterone receptor respectively. ER, PR were positive in 63.3% and 84.8% of stage I tumors respectively. Both ER, PR

negative in high grade , non- endometrioid and advanced stage of endometrial carcinomas .Her 2 neu receptor was positive in 6 cases ( 10.1%) , all four type II tumors were showed Her2/new expression. 100 % of grade III tumors , 80 % of stage III and all stage IV tumors were Her 2 neu receptor positive.

**Conclusion:**

From our study we inferred estrogen , progesterone receptor and Bcl-2 were positive in grade I and stage I tumors . Bcl-2 expression is directly proportional to estrogen and progesterone receptors. Her 2 neu receptors were expressed in high grade and advanced stage tumors . There was an inverse correlation between ER, PR , Bcl-2 and Her 2 neu receptors expression in endometrial carcinomas included in the study.

**KEY WORDS:** Bcl-2, estrogen , progesterone receptor and Her 2 neu receptor.