Prognostic Significance Of Beclin1 and TGF-β1 In Ovarian Cancer

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Abstract

Ovarian cancer is a gynecological malignancy with a high mortality rate. Autophagy is lysosomal degradation of damaged subcellular structures which is known as type II programmed cell death.Autophagy was initially thought to be a tumor-suppression mechanism and dys regulation of autophagy is suggested to be involved in tumor genesis.BECN1 is a tumor suppressor gene involved in the initiation of autophagy.It encodes Beclin‐ 1 protein, which inhibits tumor growth ,there is wide controversy about its role in inittiation,promotion oftumor and prognostic importance of autophagic molecules.Transforming growth factor β1 induce process of epithelial-mesenchymal transition (EMT), keeping, epithelial cells more motile and invasive leading to cancer progression and metastasis.

Material and methods: Fifty Blocks of paraffin-embedded ovarian tissue were selected, representing cases diagnosed as ECO.The immunohistochemical staining procedure was done using Beclin 1 and TGF-βto **Results.**,rametersdetect their expression and to correlate it with the different clinical paPositive Beclin1 expression was observed in 54% and Positive TGF-β1 staining was observed in70 % of patients tissue samples.Beclin1 significantly correlated with lower tumor grade (P< 0.031)and lower FIGO stage,P =0.01 , a significant association was observed between higher FIGO stage and TGF-β1 expression. All metastatic cases were positive for TGF-β1 versus 27.3% of metastatic cases positive for beclin. Beclin1showedsignificant correlation with non-recurring disease,P =0.005 and was associated with less mortality P = <0.001.TGF-β1 was significantly associated with higher mortality rates and relapsing disease,P =0.015,0P =0.005.

Conclusion.Beclin1 protein could be considered a good prognostic factor in OC cases while TGF-β1 considered adverse factor which could be of benefit in OC molecular targeting therapy