P035 Expression of the Eukaryotic Translation Initiation Factor 4E (eIF4E) and 4E-BP1 in oesophageal cancer

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Much evidence supports the idea that protein synthesis is involved in the regulation of cell proliferation, and that its dysregulation contributes to the loss of cell cycle control. Several components of the eukaryotic protein synthesis apparatus have been associated with oncogenic transformation of cell. The eukaryotic initiation factor 4E (eIF4E) has been shown to play a key role in cell growth, and several studies have documented an increased expression of eIF4E in a number of solid tumors, including breast, bladder, cervical, head and neck cancers. The aim of this study was to determine the level of expression of eIF4E and 4E-BP1 in oesophageal cancer. In the patients with esophageal cancer, eIF4E level was elevated by a mean of 12.6±1.7-fold , and 4E-BP1 was elevated by a mean of 16 ± 2.8-fold when compared to noncancer patients. Both eIF4E and 4E-BP1 are elevated in oesophageal cancer specimens but not in normal oesophagus specimens. The degree of eIF4E elevation is correlated with the stage of tumor. In addition, an inverse correlation between 4E-BP1 elevation and stages was found, showing significant higher elevation of 4E-BP1 in patients without metastasis. These results suggest that 4E-BP1 could function as a tumor suppressor.