Oral Session

CS-026 RELATIONSHIP BETWEEN HYPERTENSION AND PROTEINURIA ASSOCIATED WITH BEVACIZUMAB: RETROSPECTIVE STUDY ON CARDIAC TOXICITY

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Objectives: Bevacizumab is an angiogenesis inhibitor now being prescribed to many cancer patients. Bevacizumab is known to have cardiac toxicity such as high blood pressure and renal function failure although the mechanism and its time of onset remain unclear. We have examined the mechanism and its time of onset of cardiac toxicity that occurs in patients who are prescribed Bevacizumab.

Methods: We retrospectively studied 197 cancer patients, over all average age was 63 years old (16-85): 116 of colon cancer, 68 of lung cancer, 13 of breast cancer, who were all received Bevacizumab treatment at our center between Sep. 2009 and Dec. 2011. We have examined the relationship between hypertension and proteinuria, as well as time of onset.

Results: Hypertension, which we needed to use antihypertensive medicine, is recognized in 50 cases. Symptoms in 19 cases were shown within 4 weeks after the administration of medicine. For other 11 cases, the time was 5-12 weeks. In other 16 cases, the time range was 13 weeks -12 months. In 4 cases, it took more than one year. (Initial high blood pressure time : after the administration 118 ± 175 days). In other 19 cases, blood pressure rises again, so the patients were given antihypertensive drugs (late blood pressure rise time : after the administration 174 ± 225 days). 60 cases observed in the cases of proteinuria (after the administration 226 ± 210 days). 72% of the patients experienced high blood pressure. The initial high blood pressure showed no significant relationship with the appearance of proteinuria. However we have observed a significant correlation between the occurrence of elevated blood pressure and proteinuria late (r = 0.41, p = 0.0145).

Conclusion: High blood pressure associated with Bevacizumab appeared immediately after administration and during the chronic phase, it was observed as a biphasic. Proteinuria showed a strong relationship with the late high blood pressure. It has been suggested there are multiple mechanisms of angiogenesis inhibitors’ appearing their effectiveness.