The Efficacy of NF-κB/Ets Ribbon Type Decoy on Abdominal Aortic Aneurysm Confirmed in Animal Tests – Announcement by Osaka University at the Annual Scientific Sessions 2008 of the American Heart Association (AHA) –

The efficacy of NF- κ B/Ets ribbon type decoy on abdominal aortic aneurysm was confirmed in the animal tests of research conducted by Osaka University. The results of this research were announced by the study group on November 9 at the Annual Scientific Sessions 2008 of the American Heart Association (AHA).

NF- κ B/Ets ribbon type decoy, a double decoy that possesses inhibitory effects on two transcription factors, NF- κ B and Ets, is a ribbon type decoy (improved decoy with its terminal domains modified in the form of a circle), structurally altered to improve its stability in blood.

In this study, when NF- κ B/Ets ribbon type decoy was intraperitoneally administered to the abdominal aortic aneurysm model in rats, statistically significant inhibition of the size of aortic aneurysm was observed, compared with the control group. In addition, the NF- κ B/Ets ribbon type decoy showed statistically significant inhibitory effects on MMP (matrix metalloproteinase) associated with aortic aneurysm, compared with conventional NF- κ B/Ets decoy. Abdominal aortic aneurysm, which is generally difficult to treat with drugs, is a disease that develops over time. MMP, which was inhibited in this study, destroys collagen and elastin on vascular walls, and expands the vascular caliber. It is mainly treated by surgery to remove bulging arterial walls and replacing them with artificial vessels or stent grafts. If non-invasive treatment by drugs becomes possible, it may greatly ease the physical burden on patients.

The results of this test also suggest the improved in vivo stability of the ribbon-type decoy, compared with conventional decoys, which generally need to be topically administered. Therefore, it is expected that the application of NF- κ B/Ets ribbon-type decoy will lead to the development of a therapeutic drug for abdominal aortic aneurysm that can be intraperitoneally, and even intravenously (systemically) administered, leading to much less invasive treatment for patients.