Welfare), and pancreatic cancer is the fifth cause of cancer death.

Neural invasion is one of the modes of invasion characteristic of pancreatic cancer. The present inventors have revealed that: neural invasion is found in almost 100% of pancreatic cancer cases; it is an important prognostic factor; and it causes functional abnormalities of hepatocytes, and thus is correlated with cachectic symptoms such as anemia, impaired performance status (PS), and undernutrition. Furthermore, neural invasion is thought to be the cause of cancer pain and the like, and there are some reports describing that symptoms were relieved to some extent by irradiating predominant sites of neural invasion, or by excising the nerve upstream of the sites. However, the mechanisms of neural invasion and onset of symptoms caused by neural invasion are poorly understood, and thus there is currently little information on control of neural invasion and symptoms caused by neural invasion. Neural invasion is commonly found regardless of cancer types, and it has been reported as a prognostic factor of prostatic cancer, stomach cancer, and head and neck cancer.

The prior-art documents related to the present invention are shown below.

Non-Patent Document 1: Hirano, T. *et al.*, Nature (1986) 324, 73-76
Non-Patent Document 2: Akira, S. *et al.*, Adv. in Immunology (1993) 54, 1-78
Non-Patent Document 3: Lotz, M. *et al.*, J. Exp. Med. (1988) 167, 1253-1258
Non-Patent Document 4: Taga, T. *et al.*, J. Exp. Med. (1987) 166, 967-981
Non-Patent Document 5: Yamasaki, K. *et al.*, Science (1988) 241, 825-828
Non-Patent Document 6: Taga, T. *et al.*, Cell (1989) 58, 573-581

Disclosure of the Invention

[Problems to be Solved by the Invention]

Thus, an objective of the present invention is to provide novel neural invasion-suppressing agents. Furthermore, the present invention provides novel agents for treating pancreatic cancer.

[Summary]

In an aspect, there is provided the use of an anti-IL-6 receptor antibody in the production of an agent for suppressing neural invasion of a pancreatic cancer cell.

[Means for Solving the Problems]

The present inventors conducted dedicated studies to achieve the above objectives, and discovered that neural invasion is suppressed by inhibiting IL-6 in a model for neural invasion of pancreatic cancer. Thus, the present invention was completed. The present inventors also demonstrated that an IL-6 receptor is expressed in human pancreatic cancer cell lines, and that IL-6 enhances the chemotactic and migratory activities and intracellular signaling of pancreatic cancer cells, and thus pancreatic cancer can be treated by inhibiting IL-6.

Furthermore, from results of administering IL-6 inhibitors to neural invasion model mice, the present inventors showed that neural invasion of human pancreatic cancer can be