

December 2, 2019

KANEKA CORPORATION

Kaneka releases a new coil for embolization of brain aneurysms

- The coil achieves the highest level of flexibility in the world -

Kaneka Corporation (Headquarters: Minato-ku, Tokyo; President: Mamoru Kadokura) has developed a new coil for embolization of brain aneurysms\*<sup>1</sup> (product name: i-ED Coil™) and from November began sales in Japan. It is currently under review by the United States' Food and Drug Administration\*<sup>2</sup> (FDA), and once approved it is scheduled to begin selling in the US. Kaneka is aiming for global sales of 10 billion yen by the year 2023.

A brain aneurysm is a bulge that occurs in the arteries of the brain and if ruptured causes a subarachnoid hemorrhage\*<sup>3</sup>. Subarachnoid hemorrhages are an extremely dangerous type of stroke that can be fatal. The method of treatment involves either surgical treatment where a part of the skull is removed and the ruptured aneurysm is closed with a metallic clip in order to prevent rebleeding, or an endovascular procedure where embolization coils are packed inside the ruptured aneurysm from the inside of the blood vessel using a catheter. As of recent, the rate of choosing the endovascular procedure that uses embolization coils due to their lesser toll on the body has been rising every year, and it is becoming the first option in treating subarachnoid hemorrhages.

Also, there is an increase in cases where an unruptured aneurysm is found before the symptoms of subarachnoid hemorrhage appear thanks to progress in imaging diagnostic technology. As a way to prevent the rupturing of these aneurysms, endovascular procedures that use embolization coils are also becoming more frequent.

Kaneka has developed a product that brings the flexibility of coils up to the highest level in the world\*<sup>4</sup> through optimizing the diameter of the metal wire, which is the raw material for embolization coils, and incorporating special construction techniques. By using this product, not only can the coils be more densely packed into the aneurysm, aneurysms of irregular shapes (such as those where a part of the aneurysm wall juts out) can be treated, which contributes to lowering the risk of rupture. Due to the aging of the population as well as the increase in lifestyle related diseases such as diabetes and high blood pressure, there are predictions of a further increase in patients\*<sup>5</sup>. This product from Kaneka can be expected to have a greater effect on treating brain aneurysms.

From here on, not only will Kaneka continue to expand their lineup of endovascular procedure products for use with cerebrovascular disease, which include embolization coils, we will also contribute to solving a range of problems associated with cerebrovascular disease by providing

solutions to domains outside of treatment, including diagnosis and prevention.

\*1. A medical instrument used for endovascular procedures. It is put through the inside of a catheter and sent to the inside of an aneurysm in order to prevent blood from entering it.

\*2. A governmental organization of the US in charge of approval or conformity control of products which consumers have contact within daily life, such as food or medicine in addition to cosmetics, clinical instrument, animal drug or toy.

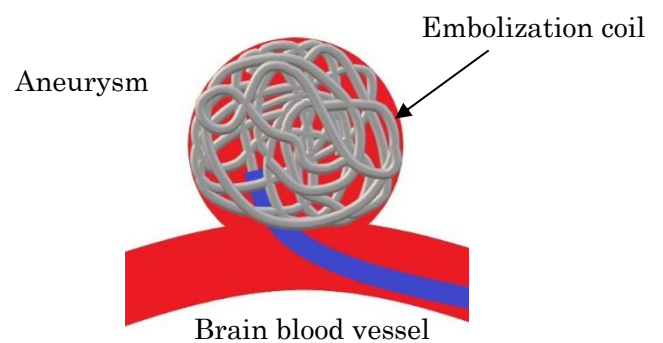
\*3. The generic term for a disease where bleeding occurs inside an arachnoid membrane covering the brain due to the rupturing of a brain aneurysm.

\*4. As found in research by Kaneka.

\*5. The number of patients of cerebrovascular disease, which represents subarachnoid hemorrhages and brain infarctions, is estimated to be over 1.1 million in Japan. (Source: Ministry of Health, Labor and Welfare, “2017 General Survey of Patients”)



Embolization coil (i-ED Coil™)



A diagram describing treatment within the blood vessel