Since its market launch on April 1 of 2008 in Japan SEAMDURA has gained a high appreciation in cases of dural defects such as meningioma. On the other hand, it has been used more frequently for cases, in which for various reasons it was not possible to apply an autologous dura mater. On this occasion, we have received a contribution from Dr. Ryuzaburo Kanazawa of the Nagareyama Central Hospital presenting his experience of using SEAMDURA on a case, in which it was not possible to apply the autologous dura mater.

**Experience of Use of SEAMDURA in a case, in which it was not possible to apply the autologous dura mater.**

Nagareyama Central Hospital, Department of Neurosurgery  Dr. Ryuzaburo Kanazawa

SEAMDURA, an artificial dural substitute, is characterized by its property of being semitransparent. Suturing of the dura mater for closing in craniotomy is a surgical procedure that is performed each time when a brain surgery is carried out. Since after incision, however, the dura mater will contract, suturing of the dura mater alone in cranial closure with undue force might cause a rupture of the dura mater or enlargement of the epidural space resulting in epidural hematoma. As a result, the plasty of the dura mater is employed many times to apply periosteum or artificial dura mater. SEAMDURA gives an impression of having superior plasticity and adhesiveness compared with the conventional artificial dura mater. It also impresses with its lower amount of cerebrospinal fluid leakage through needle holes. For reoperations it has a potential for providing superior adhesion to the vital tissue so that it is also superior in protection against infections as compared with conventional materials. The photo shows the state during the dural plasty which makes it apparent that at a glance its most favorable due to its transclucency even in the unexpected incident of subdural haemorrhage during the dural plasty. Haemorrhaging from the dura mater and unexpected injuring of the veins on the brain surface while sticking the needle in the dura mater is an experience everybody in the neurosurgical surgery field will have made. When there is no denying the fact that subdural haemorrhaging has occurred, it has so far been necessary to undo the suture. Using SEAMDURA, however, such work has been eliminated as the subdural area remains intact and visible whether or not subdural bleeding has occurred.

A female, 70 years of age, was hospitalized with subarachnoid haemorrhage, and clipping was performed against the basilar tip ruptured aneurysm. The patient had already received clipping surgery for an anterior communicating aneurysm two weeks earlier. Since the present intervention was the second craniotomy being unavailable periosteum dural plasty was undertaken with SEAMDURA. As shown in the photo, SEAMDURA also has the advantage of facilitating the trimming operation (no need for turning upside down to make a visual check) because of its transclucency. Sticking the needle deeper into the dura mater is effective for preventing spinal fluid leakage. In this manner, it was possible to see the brain surface after suturing to check whether secondary haemorrhage has occurred or not immediately before restoring the bone flap.

The impression gained on this occasion with the use of SEAMDURA for dural plasty is surely the fact that manipulation of the trimming is easy and it can be judged immediately whether subdural haemorrhage has occurred or not. Another favorable impression that comes to mind is that adhesion of the sutured area is superior compared with the conventional artificial dura mater. When tightly sutured it is possible to dispense with the use of blood preparations such as fibrin glue with almost no spinal fluid leakage visible with the naked eye. While future findings will be needed to shed light on delayed allergy and absorption in the chronic stage of this product it is an extremely easy-to-use product.

Expectations call for the development of larger-size products for cases requiring large-area dural plasty such as external head wounds.

**Four size variations**

1 sheet per box (in a sterilized double-sealed pack)

<table>
<thead>
<tr>
<th>Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6cm</td>
<td>SD-0505</td>
</tr>
<tr>
<td>8cm</td>
<td>SD-0510</td>
</tr>
<tr>
<td>10cm</td>
<td>SD-0515</td>
</tr>
<tr>
<td>12cm</td>
<td>SD-0210</td>
</tr>
</tbody>
</table>

---

**http://www.gunze.co.jp/e/medical/**

**GUNZE LIMITED**
**MEDICAL DIVISION**

**NIHONBASHI 2-10-4, CHUO-KU, TOKYO 103-0027 JAPAN**

**PHONE: +81-3-3276-8718 FAX: +81-3-3276-8696**