noma. Also in the current case, the patient presented with benign and malignant tumors arising from the sebaceous gland at a younger age. This led to an impression of Muir-Torrey syndrome followed by various clinical and laboratory examinations. However, there were no other internal malignancies. In patients with Muir-Torrey syndrome, however, the sebaceous gland tumor might occur prior to or following the occurrence of internal malignancies. Otherwise, it might also be concurrently present with them. Accordingly in the current case, regular check-ups are being performed regularly to monitor the recurrence of sebaceous carcinoma and the occurrence of internal malignancies.

The general treatment guidelines are that a wide excision with a safety margin of 5 to 6 mm should be performed in combination with a frozen section biopsy and a permanent section one [1,3]. In the current case, a wide excision was performed with a safety margin of 5 mm. Synchronously, a frozen section biopsy was performed for the resection margin. The ocular sebaceous carcinoma had a metastasis to such organs in 3% to 25% of total cases, based on which a poor prognosis has been well documented [2,3]. The doctor should ask about family history of skin and internal malignancies. A physical examination and laboratory examinations should be performed as well as palpation of the lymph nodes and adjacent and contiguous structures to determine the extent of disease.

The authors experienced a very rare case of extraocular sebaceous carcinoma that occurred in the nevus sebaceous of the occiput, and have obtained good treatment outcomes using a wide excision with a safety margin of 5 mm and a local flap on a frozen section biopsy. Here, we report our case with a review of the literature.

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Differences in Blood Loss According to Hemostatic Method in the Excision of Giant Neurofibroma

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Approximately half of the patients who have neurofibroma also develop vascular deformities and vascular malformations inside the neurofibroma masses [1]. Therefore, there is a high-risk of hemorrhage during surgery. Many methods have been reported for reducing hemorrhage such as hypotensive anesthesia [2], preoperative arterial embolization [3], and vasa vaso-rum ligation [1]; however, the effectiveness of these methods is questionable. If the neurofibroma mass is localized, the continuous loop-shaped suture ligation procedure [4] will help reduce the bleeding. We report our experience with reducing hemorrhage by comparing several surgical methods for hemostasis in extensive giant neurofibromas.

A 69-year-old female patient presented with extensive giant neurofibromas throughout her body and massive neurofibromas on her buttocks and thighs, along with aggravating lower back pain, difficulty in walking, and mood disorder. The dimensions of the
mass were 50×50×16 cm and it covered most of the patient’s lower extremities (Fig. 1). The patient’s weight was 67 kg. A preoperative pelvic magnetic resonance imaging was performed and there was no sign of malignancy, hematoma, or necrosis. There was neither skin ulcer nor skin necrosis.

During the first operation, we used Bovie electrocautery (ValleyLab, Boulder, CO, USA), bipolar cautery, and hemoclips. However, we stopped the surgery because of massive intraoperative bleeding. The patient received 15 units of packed red blood cells and 5 units of fresh frozen plasma during the transfusion. Subsequently, the authors planned a second-stage operation. During the first operation we resected 10 kg of weighed mass during a 9 hours and 40 minutes operation. During the second operation we controlled hemorrhage using hemostatic forceps and manual ligature. The total mass resected during the second operation was 13 kg. The patient received 5 units of packed red blood cells intraoperatively and 3 units postoperatively. The second operation time was 9 hours and 15 minutes. Compressive dressings were maintained after the surgery.

The patient’s vital signs were hemodynamically stable and there were no complications, such as lymphedema or bleeding; however, wound healing was delayed. A negative pressure wound therapy was helpful for promoting wound healing. Four months after the two operations, the wound was well healed, and the shape of the buttocks and thighs were anatomically appropriate (Fig. 2). The patient’s lower back pain also improved and she regained a normal gait.

The authors resected almost the same quantity of tumor mass during each operation from the patient; however, the amount of bleeding during the second operation was much less than that during the first operation. Therefore, we believe that a tedious process of hemostasis using hemostatic forceps and manual ligature was more effective than electrocautery for reducing hemorrhage during surgery.

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