EP-162

가성혈관종성 기질증식증으로 인한 양측 거대유방증에서 피부 절제 유방절제술 후 보형물을 이용한 즉시 유방재건술

Immediate direct-to-implants breast reconstruction after bilateral gigantomastia caused by pseudoangiomatous stromal hyperplasia

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Background: Gigantomastia is a rare condition characterized by excessive breast enlargement causing physical and psychological distress, often influenced by hormonal factors. When associated with pseudoangiomatous stromal hyperplasia (PASH), management remains unclear and controversial. Surgical treatment is often required, and this report presents two patients who underwent mastectomy with immediate direct-to-implant reconstruction.

Case report A 43-year-old woman (patient 1, Fig. 1) presented with recurrent gigantomastia after prior reduction mammoplasty, showing rapid breast regrowth within months. Imaging revealed multiple masses with increased vascularity, and histopathology later confirmed PASH. (Fig. 3) She underwent bilateral skin-reducing mastectomy with immediate implant-based reconstruction and free nipple composite grafting. The resected tissue weighed 4,343 g on the right and 4,467 g on the left, with 360 cc implants inserted, and maintained stable results without recurrence at 3 years. (Fig. 5) A 39-year-old woman (patient 2, Fig. 2) presented with progressive breast enlargement of more than two cup sizes over 1–2 years, causing functional impairment, with no evidence of malignancy on evaluation. She underwent bilateral skin-reducing mastectomy followed by immediate implant-based reconstruction. The resected tissue weighed 3,403 g on the right and 3,825 g on the left, and 320 cc implants were inserted using a Wise-pattern skin redraping technique. At 3 months postoperatively, no recurrence was observed and outcomes were stable. (Fig. 4)

Discussion: PASH is a rare benign breast disease with variable presentations, ranging from incidental findings to palpable masses or gigantomastia. Histologically, it shows myofibroblastic proliferation with slit-like spaces resembling low-grade angiosarcoma. Imaging findings often mimic fibroadenoma, making diagnosis challenging. Due to its rarity, standardized treatment has not been established, but surgical excision is recommended for large, rapidly growing, or suspicious lesions. Recurrence rates after excision vary widely, and previous reports show frequent recurrence even after reduction mammoplasty or local excision. Many recurrent cases ultimately require mastectomy, as incomplete removal increases recurrence risk. Although mastectomy is effective, it can cause significant psychological distress, particularly in younger patients. Immediate breast reconstruction and appropriate management of the nipple–areolar complex can improve aesthetic and psychological outcomes.

Conclusion: To the best of our knowledge, this is the first case report of immediate breast reconstruction using the direct-to-implant technique in a patient with recurrent bilateral gigantomastia caused by PASH who underwent therapeutic mastectomy. The direct-to-implant approach offers a convenient one-stage reconstruction option with good aesthetic outcomes. Further research and clinical experience will contribute to refining the selection criteria for this technique in patients with PASH and optimizing overall reconstructive strategies in the future.

Figure 1. Serial clinical photographs of patient 1 demonstrating progressive breast enlargement despite previous surgery. These images illustrate the failure of the initial surgical intervention and the need for additional treatment.
(A) A 43-year-old patient with a rapid, more than two-fold increase in breast size within a year.
(B) Four months after reduction mammoplasty at a local clinic, the breast size began to increase again.
(C) Preoperative photograph obtained at a year after undergoing reduction mammoplasty.

Figure 2. Preoperative clinical photograph of patient 2 presenting with a 2-cup size breast enlargement over the past 1–2 years.

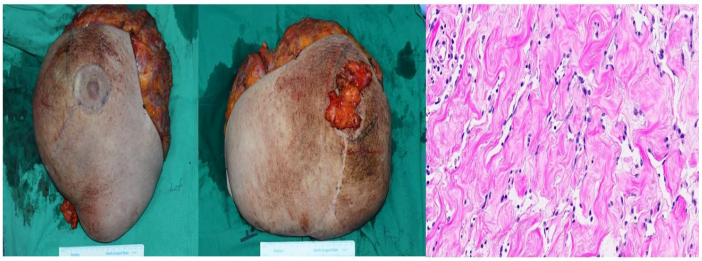

Figure 3. Gross specimen and pathological findings following skin-reducing mastectomy of patient 1. These pathological findings are consistent with a proliferative vascular process and support the diagnosis suggested by the imaging studies.(A) Specimens obtained after skin-reducing mastectomy via a Wise pattern. Post-mastectomy, the left breast tissue weighed 4467 g and right breast tissue weighed 4343 g.(B) Microscopic examination of the excised masses. Histologically, complex interanastomosing channels lined by slender spindle cells were present in the dense collagenous intralobular and interlobular stroma. (Hematoxylin and eosin, 20×).

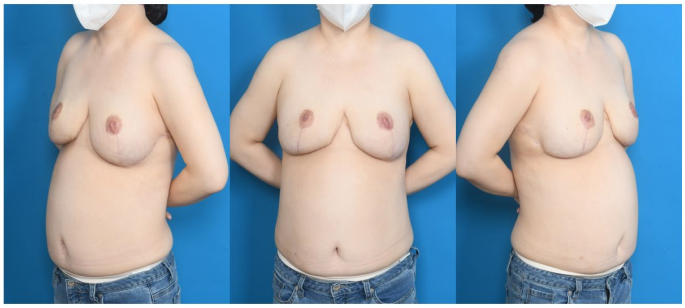

Figure 4. Postoperative appearance 10 months after surgery of patient 1. The photographs demonstrate stable breast contour and complete integration of the free nipple grafts without evidence of graft necrosis or recurrent enlargement. These findings indicate a favorable long-term surgical outcome and support the effectiveness of the procedure.