

Dermatitis following expander-based breast reconstruction after skin sparing mastectomy - Diagnostic work-up and Treatment

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Post-breast reconstruction dermatitis is a rare finding. In literature, cases with both autologous and non-autologous reconstruction (i.e. expanders, breast implants) have been described. Since the underlying pathomechanisms are unclear, there is no consensus about the correct treatment. The study aim was to analyze all cases with dermatitis occurring after breast reconstruction in our center in the last 2 years regarding diagnosis, treatment and outcome.

Ten patients presenting with post-breast reconstruction dermatitis after prepectoral expander-based breast reconstruction following skin- or nipple sparing mastectomy were retrospectively reviewed. We performed allergy testing using a Patch test for all materials contained in the implanted expander (Flora™, Motiva, Establishment Labs, Costa Rica) and used during surgery, as well as materials used for postoperative care (plasters, creams).

All 10 patients developed a dermatitis localized to the skin of the mastectomy flap after a median of 30 days (range 23-150 days) after expander insertion. Infection was excluded in all patients. In 8 patients, local application of cortisone cream was sufficient to resolve the dermatitis, in one patient systemic, oral prednisone therapy was necessary for 9 days. In one case, the rash was self-limiting. Treatment success was achieved within 7-9 days in all patients. Allergy testing (4/10 patients) revealed the following: no allergy in one patient, allergy to nickel (type IV reaction) in 2 patients and allergy to methylisothiazolinone (type IV reaction) in one patient.

Dermatitis of the breast skin after expander-based reconstruction is usually treated successfully with local corticosteroids. Differential diagnoses, including infection or red breast syndrome must be ruled out. Since the expander used in our patients contains nickel in the port, patients with allergy against this component might be particularly prone to dermatitis when using this type of expander.



Fig. 1: 60-year-old woman with a skin rash localized to the breast, 28 days after skin-sparing mastectomy and breast expander-placement.



Fig. 2: 42-year-old woman with dermatitis, 27 days after nipple-sparing mastectomy and breast expander-insertion due to NST cancer of the left breast.



Fig. 3: 42-year-old woman with skin rash on the right breast, 26 days after nipple-sparing mastectomy and breast expander-insertion because of DCIS.



Fig. 4: 47-year-old woman presenting a skin rash on the left breast 23 days after nipple-sparing mastectomy and breast expander placement.

