

## Flap ischemia after tissue expander filling session.

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*Tissue expansion has emerged as a highly valuable and reliable method of body reconstruction<sup>1, 2</sup> over the last few decades. The technique however has a wide range of complications and there is need to spread awareness among the general practitioners about this method so that the possible complications can be diagnosed early and proper timely management instituted.*

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### Case Report

A 23 years old male with past history of right facial burns with resultant cosmetically disfiguring scars has undergone insertion of tissue expander for expansion of healthy neck skin. The expander was being filled on weekly basis by a qualified plastic surgeon over a period of two months. After one such session, the patient felt pain in the affected area and had sought consultation with a local medical practitioner who had administered an analgesic with no relief. He reported with the author after six hours of filling session. On examination, there was a dusky discoloration of the skin over the expander (Figures 1 A, B). Capillary return was sluggish. On the basis of history and clinical features, a diagnosis of flap ischemia/venous outflow obstruction due to inadvertent over filling was made. The port site in the right sub-clavicular area was identified and 70 cc of fluid was drained out under all aseptic precautions. The patient got instant pain relief and capillary return improved over next 15 minutes. The patient was referred back to the attending plastic surgeon who appreciated the timely intervention. Feedback was duly relayed to the medical practitioner in order to avoid lapses in future.



**Figure 1.** Flap ischemia with dusky discoloration (red arrows) over the tissue expander (A) Lateral view (B) Antero-lateral view

### Discussion

Tissue expansion is one of the most versatile tools in the armamentarium of the plastic and reconstructive surgeons. This method involves the insertion followed by gradual filling of silicone balloon shaped expander in a healthy area adjoining to the defect to be reconstructed.

The tissue gets expanded with time, when the tissue expander is removed and the expanded tissue used to reconstruct the defects.

However, in spite of having emerged as a versatile tool in tissue reconstruction, use of tissue expanders can result in complications in around to 20 % of cases<sup>3</sup>. These prominent complications include expander exposure, infection, mechanical malfunction and flap ischemia<sup>3-4</sup>.

The patient stays with the tissue expander for weeks together and may not always have ready access to higher centres particularly in economically deprived regions. Hence, there is a need to spread awareness among the primary health care providers about their common complications by workshops and continuous medical education programmes. Intervention in the present case got delayed simply due to lack of knowledge about the this tool and further delay would have ended up with flap loss and resultant tissue deficit in neck , making the case very difficult to manage.

This case also brings forth an issue of informed consent in surgical practice. Our patient had not properly understood the significance of pain after tissue expander expansion and this factor led him to seek help from local practitioner rather than to seek expert help. Proper counselling of patients should be done and informed consent should be secured after explanation of the potential complications of the surgical procedure in the language and manner that the patient understands<sup>5</sup>.

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