

# Treating sunken cheeks



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With facial hollowness a fairly common condition seen in HIV patients, what treatments are available to successfully correct it?

## CASE SCENARIO

A 65-YEAR-OLD man, diagnosed with HIV since 1994, presents with severe facial hollowness requesting treatment (Figure 1). He feels he is looking increasingly gaunt despite enjoying stable and good health. He is very self-conscious of the way he looks and had fat transfer several years ago without success. His current medications are Kaletra (lopinavir/ritonavir), nevirapine and lamivudine (highly active antiretroviral therapy).

On examination, there is significant hollowness in both the cheeks and temples with prominent nasolabial folds. There is also fat loss on the upper and lower limbs and fat accumulation in the parotid and abdominal areas. What is this man suffering from and what are the management options?

## FACIAL HIV LIPOATROPHY

Facial HIV lipodystrophy is a stigmatising condition that can be cosmetically disfiguring. The pathogenesis of this condition involves antiretroviral therapy, HIV-1 infection, immune reconstitution-associated phenomena and host factors. It is commonly believed that the antiretroviral drugs, in particular protease inhibitors and reverse transcriptase inhibitors, are the main contributors to HIV lipodystrophy. The term lipodystrophy covers both the abnormal fat loss (lipoatrophy, e.g. cheeks, limbs) and fat gain (lipohypertrophy, e.g. upper back/neck, abdomen)

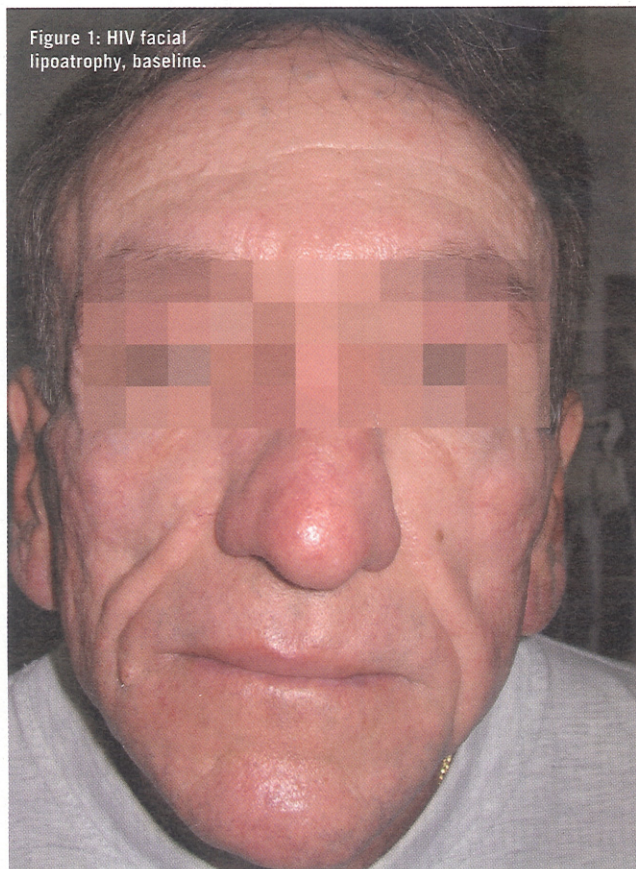


Figure 1: HIV facial lipoatrophy, baseline.



Figure 2: Post-treatment.

that can occur concurrently in the same patient.

## MANAGEMENT

The most effective treatment for lipoatrophy is procedural intervention with synthetic volume-restoring filler injections such as poly-L-lactic acid (PLA, Sculptra), calcium hydroxylapatite (Radiesse), polyacrylamide (Aquamid) and silicone (not routinely available in Australia).

### PBS-approved filler

Currently the only PBS-approved filler for HIV lipodystrophy is PLA (Sculptra), since 2010. Medicare allows up to 10 vials for the initial correction of HIV lipodystrophy (over the first 12 months), followed by maintenance of two vials every two years. Patients with severe HIV lipodystrophy usually require multiple (up to five or more) treatment sessions of PLA for optimum correction.

A Medicare rebate has recently been approved for PLA (Sculptra) injections in the setting of severe HIV lipoatrophy. In

Australia, plastic surgeons, dermatologists and doctors specialising in HIV medicine provide the majority of procedural injections for HIV lipoatrophy.

### Poly-L-lactic acid (Sculptra)

PLA (Sculptra) is an injectable synthetic filler that is made up of chains of lactic acid. Many types of dissolvable sutures are made from PLA. The PLA is manufactured as a fine powder that is reconstituted in sterile water for injections. When injected into the skin, PLA gradually stimulates natural deposition of collagen to thicken the skin. As the PLA gets absorbed over time, the volume-enhancing effects persist due to an increase in skin collagen triggered by PLA.

Multiple subdermal injections are given to the facial areas requiring revolumising. The procedure can be carried out with or without anaesthetic. PLA is naturally degraded in the skin to a natural by-product that is safely cleared by the body.

After treatment, it is important for the patient to massage the treated area five times a day for five minutes each time, to minimise any uneven product distribution or lumpiness that may occur. There may be initial mild bruising and swelling for 3–4 days. When this settles, the treated area may appear not much different than the baseline appearance. However, over the next several months, there will be gradual thickening of the collagen layer of the skin. The injection sessions can be repeated every 4–6 weeks. The skin volume-enhancing effects generally persist for up to 18 months, hence biannual (every two years) maintenance injections are required.

## CASE MANAGEMENT

Initial medical intervention included alteration of his HIV medications and autologous fat transfer. Unfortunately, neither of these interventions improved his facial appearance.

Medication changes may stop lipodystrophy getting worse but seldom reverse the condition. Autologous fat transfer (harvesting fat from one body area for injection into the cheeks) has unpredictable results and is not ideal in HIV patients where fat stores may not be readily accessible.

While this patient failed to improve with autologous fat transfer, there was a noticeable improvement in his appearance following a series of PLA (Sculptra) injections (Figure 2).

## CASE OUTCOME

Correction of HIV lipodystrophy can offer an enormous psychological boost to patients. As HIV is now a manageable chronic disease, there is increasing emphasis on correcting the stigmatising lipodystrophic appearance in order to improve psychological wellbeing and quality of life.

The introduction of a PBS-listed PLA filler for severe HIV facial lipoatrophy, along with a procedural Medicare rebate, should improve access for all patients, especially those who are financially disadvantaged.

In this patient, the cosmetic improvement from treatment was life-changing. His self-confidence improved, along with his perception of how others view him. He was no longer constantly reminded of HIV/AIDS and felt better able to get on with life.

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